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DECEMBER.

APPEARANCES OF TREES IN WINTER.

DECEMBER is thus graphically described by anonymous English authors:—

"Age does not wither beauty more effectually than winter withers all the pleasantness of our old rural haunts.—Paths, that in the flush and lusty pride of summer, were bowery cloisters, pillared and roofed with rustling boughs, vocal with bird-notes, or the murmuring hum of insect-life, and filled with a green twilight that sunset used to kindle into gold, are bleak and bare, silent and desolate, open to the sky above, and carpeted with sodden leaves beneath. Rippling runnels have lost their silvery voices, and utter hoarse responses to the wailing wind. Silver-sheening ponds, that were such faithful mirrors of the changeful heavens, are now mere miry reservoirs, turbid and dark, black blots upon the blank and dreary landscape. Trees that were lately garmented with lavish leafiness, wear now the spectral aspect of grim and grisly skeletons; and through their rude and leafless branches, we obtain a glimpse of cottage roofs and fair white walls, that have been hidden from our eyes, since April's leaves were young and green."

The preceding passage affords us a vivid picture of a wintry landscape, before the snow has come upon the earth; and the beauty of the description is proof to our mind that the loveliness of nature, though changed, is not destroyed. As the supposed cheerless season of winter has now come upon us, let us consider whether all that can yield no pleasure must be sought within doors, while it continues, or whether nature is not still inviting us by new aspects of beauty, to contemplate her ever changing scenes. In summer we see the leafy beauty of trees, but cannot well discern the beautiful arrangement of their spray and the different hues of their branches. Gilpin, in his work on "Forest Trees," has treated this subject very fully. He says "The boughs of trees, likewise, and all their larger limbs, add, in winter, a rich variety and contrast to the forest; the smooth and the rough, the light and the dark, often beautifully opposing each other. In winter, the *stem* predominates, as the *leaf* in summer. It is amusing in one season to see the branches losing and discovering themselves among the foliage: and it is amusing also, in the other, to walk through the desolate forest, and see the various combinations of stems, the traversing of branches across each other in so many beautiful directions; and the pains which nature takes in forming a *wood* as well as a single *tree*. She leaves no part unclosed; but pushing in the branch, or the sprig, as the opening allows, she fills all vacant spaces; and brings the heads of the trees which grow near each other into contact; while every step we take presents us with some beautiful variety, in her mode of forming the fretted roof, under which we walk."

We call attention to these appearances, because we are persuaded that the more beauty one is able to behold and appreciate in nature, at all seasons, and especially in winter, the more pleasure will attend his rustic occupations; and the more contentedly will he perform those out-of-door tasks, which must often be performed alone, with nothing but the wild objects of nature for his companions.—Probably there are not many of our New England farmers, who are generally shrewd and intelligent observers, who have neglected to notice the different appearance of trees in the winter season; and who does not know the elm, the ash, the oak, and

other trees, in winter by the character of their spray, as well as by their foliage in summer? There is a gracefulness about the elm in winter which is even more apparent than in other seasons. Not only do the large branches form beautiful arches by their drooping, but they are sub-divided into the minutest spray that hangs almost like fringe from every part of the tree. The spray of the ash and the horse chestnut, on the contrary, is stiff, blunt and coarse, and would afford a stranger but a feeble conception of the beauty of these trees when they are in foliage. It is needless to extend these remarks; but any one who has not previously made such observations, would, if his attention were called to them, find much to interest his mind by its novelty and beauty.

It is in winter only that an opportunity is afforded us to observe the different colors of the branches of trees. These, in some instances, present a very beautiful sight. Some species of willow have a bright golden colored spray; in others it is of a vivid green; and these colors are often beautifully contrasted with the dark purple bark of the branches, and the ashen spray of the birch or the poplar.

In the shrubbery of our pastures we observe a still greater variety of hues, passing through a series of beautiful gradations, from a bright crimson, to a dark purple and mulberry hue. All these are placed in pleasing opposition to the brown surface of the pasture and the grey rocks covered with lichens and patches of bright green mosses. When one has once become accustomed to observing these appearances, they provide for him an endless source of amusement, when engaged in the occupations of the field.

But we must not confine our remarks to the mere aspects of the season. We are reminded by our observations abroad, in a peculiar manner, of the uses and the necessity of trees and forests, for protection from the cold and raging winds of this inclement season. This is a subject that has never sufficiently occupied the attention of our farmers. Many there are, who appreciate the beauty of forests, and the value of the shade of wayside trees; and all feel the necessity of preserving a constant succession of woodland growth, to furnish a regular supply of timber and fuel. It is time we should all duly consider the advantages of trees and forests as a protection from the bleakness of winds. These advantages are not obtained by a wide extent of wood, in any greater degree, than by a dense and narrow strip. A mere row of single trees affords but little protection from the winds, because the current passes freely underneath the branches: but a narrow plantation of wood, with its undergrowth, especially if it consists of a liberal mixture of evergreens, must be a sure protection from all the winds that blow at right angles with its length.—Hence it is plain, that the more generally any tract of country is intersected by such strips of woodland, the more secure it must be from any steady currents of wind.

This consideration suggests to us the necessity, when we are employed in cutting down a tract of woodland, of leaving a narrow strip with its undergrowth, wherever it may be left with advantage. If there be a ridge of land extending through this piece of wood, leave the trees on this elevation; if the whole be a level, leave a strip on the outside of the wood, where it joins with the open pasture.—The advantage of choosing the outside for this purpose, arises from the greater number of well formed and fully developed trees, on the outskirts of a wood. Such as cannot be found in the midst of it. The outer portion is likewise always better supplied with undergrowth which is quite as important as the trees, to protect the adjoining fields from the wind.

We have often been surprised to see how ruthlessly our people will sometimes cut down a little warm plantation of trees, like the kind which we have recommended, for the sake merely of clearing the whole of a certain space. Sometimes they appear to understand the value of the trees, but spoil half of their advantages by depriving them of their undergrowth. A wood covering a square space of ten or fifteen acres, might be divested of its undergrowth, and if necessary, converted into pasture, without diminishing its value for purposes of protection; because a current of wind could not freely pass through such an extensive body of trees. But a long and warm plantation, though nearly as valuable for shade without its undergrowth, is almost useless without it as a protection from winds. We should advise the owner of land, therefore, never to clear such a warm tract of its undergrowth; and if it be destitute of it, plant it as soon as possible, with those hardy and valuable shrubs, such as the cornels, the vimineous blueberries, hazel-bushes, laurels, and even barberries, which flourish readily in all situations.

To return to the aspects of nature:—has the reader never observed that a small tract of wood—that is, a tract of only a few rods in width—is never so pleasing an object of sight, when its undergrowth is wanting, as when it is well supplied with it? See how bald and naked every wood appears which is without this pleasing accompaniment! How artificial it looks, how cold and uncomfortable! The smaller trees and shrubs and tangled vines, that always skirt a wood of several years' standing, unless they have been cleared away by the hand of man, are the shading which nature employs to embellish her landscapes. They cause the wood to unite gradually and almost imperceptibly with the plain, instead of presenting a bold

and perpendicular outline, such as we behold in clearings.

For the New England Farmer.

CHINESE SUGAR CANE.

Last spring, through the kindness of the editor of the *American Agriculturist*, I received a paper of seed of the "Sorghum." The 18th of the 5th month I planted sixty-four hills, putting five seeds in a hill, on a gravelly spot in the garden, and *without applying any manure*, though the land was in good condition for an average crop of corn. I knew the land was not the *best*, but it was the *earliest* spot I had. The seed did not all come up, and that which did, grew very slowly the first six weeks, owing principally, no doubt, to the cold, wet weather which prevailed. It being something new in this region, a number of persons examined it, and the general opinion was, that it would not succeed well here. Early in the 7th month, however, it took a vigorous start, and soon reached the height of six—eight—ten feet. About the first of 9th month, the heads began to appear, and it soon reached the height of 11½ feet. The 26th of 9th month, I cut a few hills, pounded the stalks, and pressed as much of the juice as I could in a cheese-press, but for want of sufficient power, I obtained but a small part of the whole. This I boiled down, and made a little syrup, which was very fine, though a little acid was perceptible. I have since learned that lime should be used as a corrective. I find one hundred and seventy-six seeds produced canes which headed; some of them are over twelve feet high. These also threw out one hundred and five suckers, most of which headed, and many of them were as tall as the parent canes.

I think that "Essex," (p. 407 of current volume,) could he see my "patch" of canes, would think it something else than "a diminutive looking grass," though growing in latitude 44° North. I find it rather more hardy than Indian corn. Mine was not killed until the morning of the and 17th of month, when the mercury fell to 32°, even this then only the ends of the leaves were killed. I cut it up the 20th, and the entire stalk and a portion of the leaves were green. The 2nd of this month the mercury fell to 35°, and corn was visibly marked by frost, yet not a leaf of the Sorghum was touched. The heads appeared in good season, yet I fear that none of the seed will ripen. Some is nearly grown, and I have placed a few stalks in a warm room to see if it will mature. It fills very slowly, but I attribute it to the abundance of wet weather which we have this fall, which keeps the temperature at a lower point than usual.

Judging from this my first experiment, I am of the opinion, that, with the aid of suitable machinery for expressing the juice, it may be raised with profit for making syrup, even in this latitude; and as a crop for feeding to cattle and swine, I have not the least doubt of its utility and value. When the stalks are from four to six feet high, cattle and horses are very fond of it. When full grown, it is too hard for them to eat, but hogs will chew the hardest cane as eagerly as they will an ear of corn, extracting the juice, and leaving nothing but the outside of the stalk, and that thoroughly masticated and pressed. I intend to make another trial next year on a larger scale. I hope those who have experimented with it this year, will give the results to the public.

We have remarkably wet weather—nineteen out of twenty-five days of this month have been rainy or mostly cloudy, and farmers are consequently very much behind the time in their harvesting. The 20th and 21st were very cold. Snow fell moderately most of the 20th; the mean temperature of the day was but 32°. In the morning of the 22nd the mercury fell to 24°. I am informed that snow fell to the depth of eight inches the 20th, at London, C. W. Since that time the weather has been mild. Grain is extremely low, and money scarce. L. VARNEY.

Pictou, C. W., 10 *Mo. 26th*, 1857.

For the New England Farmer.

FARMERS' CLUBS.

During the late driving north-east storm, I was thinking what we could do for the benefit of the young farmers of our neighborhood; and it seemed the best thing to be done, was to induce them to associate together for mutual instruction. There is scarcely any town about, where twenty or more could not be enlisted in such an organization, if they could but feel that benefit would accrue therefrom. Let it be tried, and all those who are willing to improve, invited to join. Let there be appointed a supervisory committee of three, who shall have the general direction of the meetings at such times and place as can be made most convenient; and a Secretary to record what is done at each meeting, which record is to be read at the opening at the next succeeding meeting. Let a general invitation be given to all interested in the purposes contemplated, to come in and witness what is said and done; and to communicate of their experience. My word for it, in whatever village this course shall be faithfully pursued for a period of six months, it will not soon be relinquished. If we have a political or religious object in view, we bring it about by associating together. Why not do the same thing, in relation to our own means of living? This, if I do not mistake, has already been done in some of the best farming towns of Old Essex, where may be found as successful culture as elsewhere. Why not extend the same thing throughout the OLD BAY STATE.

For the New England Farmer.

A GREAT YIELD OF OATS.

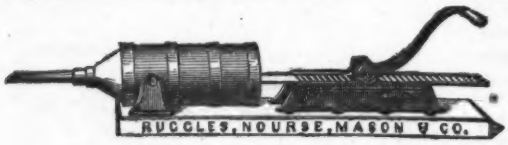
MR. EDITOR:—One year ago last March, I saw advertised in your paper a new kind of oats, called the Australian Oats, by a gentleman in Rhode Island. I sent for some, by mail, and received about a table spoonful. I sowed them in drills on the end of some rows of potatoes, placing the kernels about four inches apart, and the yield was twelve quarts. This year I sowed them broadcast, rather thin, and raised *thirteen and one-half bushels*, weighing forty pounds to the bushel. The heads were from twelve to nineteen inches long, some of the heads having two hundred and five kernels! If any one has beat this, I should like to hear from them, for I think it a good plan for farmers to raise what yields the most profit.

C. F. LINCOLN.

North Sherburne, Vt., Oct. 27, 1857.

SAUSAGE STUFFER.

A convenient meat cutter is wanted at any season of the year, but the sausage stuffer only occasionally. The sausage stuffer, however, is a fit companion for the meat cutter, and in many cases ought to go with it. Sausages are stuffed with extraordinary despatch with it, and the farmer who makes his own links will find it a convenient and excellent article. There are four sizes, three of which are with one or two tubes. The tubes are made to be attached or taken off by a screw, and differing in size, fit large and small skins.



For the New England Farmer.

WHITEWASHING TREES.

MR. EDITOR:—Both vegetable and animal bodies are subject to diseases, as well as the attacks of parasitic animals, and remedies and preventive or prophylactic measures, are just as proper in the former as in the latter case. Conceding the bark of trees to be endowed with as important vital functions as the skin of man, analogy would lead us to the conclusion, that as local applications are efficient remedies in the one, so also they would probably prove to be in the other. Sulphur, and lime and mercury, which are so destructive to human parasites, are no less so to vegetables; and the process of whitewashing trees is no more unnatural or irrational than applying sulphur or mercurial ointment to the epidermic coat of animals. Veterinary surgeons recommend washing the skin of the horse with a decoction of walnut leaves or tobacco, to prevent the gad-fly from depositing its ova or nits on the hairs of the animal, and thus prevent an attack of bots; is it any more absurd to apply lime to our trees, to prevent the ravages of their winged enemies, the aphis and the borer? I have not stated that the bark has no function; but I have said that the epidermic layer was chiefly for the purpose of protection to the more important structures beneath, and that its office was not for nutrition, and consequently no harm would accrue from covering it with an impenetrable varnish. Your correspondent, L. W., seems ignorant of the fact, that the "stomata" or "pores" of which he speaks, *are found chiefly in the epidermic coat of the under surface of the leaves*, and are rarely found elsewhere. "As a general, rule," says Prof. Gray, *"the stomata wholly or principally belong to the epidermis of the lower surface of the leaf."* ("The Botanical Text Book," p. 103.) The experiment alluded to, of placing a dried, shrunk and shrivelled plant (herbaceous) in water, and its imbibing moisture, proves nothing in regard to the vital function of the epidermis of the bark of trees; it is a phenomenon of purely physical endosmose. Strange that solearned a physiologist should have adduced this as a case in point. That absorption, as well as exhalation, is performed by the leaves of plants, is known to every farmer who has observed the effects of a heavy dew in reviving his wilted corn; but few are so stupid as to imagine that this effect has been produced by absorption from the stalks! Every tyro in vegetable physiology knows that the bark is composed of three distinct layers, the *epidermis*, the *cellular integument* and the *liber* or inner layer; that the two outer are cellular in structure, and the inner, or liber, both cellular and woody; that the sap absorbed by the spongioles of the roots, ascends through the outer layers of the trunk or stem, by the effects of the *alburnum*, or sap wood, to the leaves, and is there elaborated by exhalation through the stomata, and by decomposition through the agency of light, into a nutritious fluid called *latex;* that this fluid descends by the lacticiferous tissues of the liber; that a part of the sap is transformed into a viscid matter, called *cambium*, and deposited between the liber and the wood, forming a cellular layer on each, while another part is carried inward from the bark by the medullary ways, and is distributed through the whole stem or trunk, while the remainder passes on to the roots, and is diffused through their substance. He may probably not know that the fluid exhaled through these stomata is so nearly pure water, that it does not contain the 1-25,000th part of solid matter, proving that it is simple exhalation, and that no vital process of secretion is concerned in the process. (Carpenter's "Com. Phys.") He knows, too, that the removal of the epidermis of the white birch does not injure the growth of the tree any more than covering it with paint or varnish, and he therefore concludes with Prof. Gray, "that it is obvious that the sap-wood and the liber are alone permanently essential to the existence of the trunk." (Lae. Cit., p. 83.) L. W. endeavors, by a garbled quotation, to give a meaning to the remarks of Schleiden, which this author did not design to convey. His words are, "In certain places, little orifices are left between the cells, leading into the interior of the plant. These slits, through which the plant communicates with the atmosphere, and expires gases and watery vapor, are opened wider, or contracted, as may be required." ("Poetry of the Veg. World," by M. J. Schleiden. Am. Ed., 1857, p. 61.) This writer represents the function of the stomata to be, to evaporate the superfluous water absorbed by the spongioles. He does not intimate, even, that they ever absorb moisture, and no one but L. W. has ever supposed that they are concerned in "nutrition." I am half-disposed to charge your correspondent with sinning against what light he had, for in the very sentence of Schleiden preceding the one quoted, this writer remarks,—"It (the epidermis) becomes clothed, sooner or later, with a layer of varying thickness, of a homogeneous substance, which receives beside, a thin coating of wax or resin; thus the enveloping membrane becomes impenetrable by fluids, and even repels them, since water runs off it as from a greasy substance."

I might safely rest the question here, so far as theory is concerned, having shown that the application of lime, paint and other substances to the bark of trees violates none of the laws of vegetable physiology, as explained by the highest authorities. But in regard to the particular question we are now discussing, viz; the application of lime to trees, the whole is irrelevant, inasmuch as whitewash, instead of obstructing the absorption of gases and moisture,

(which L. W. assumes to be the function of the bark, contrary to the opinion of all writers on this subject,) actually has a strong attraction for both, and is in daily use, as a disinfectant, on account of this very property. So far from obstructing the pores in the bark of trees, supposing that they had any, it would have a directly contrary effect, and aid "nutrition" by its affinity for carbonic acid gas. Supposing, again, what is not true, that any nutritive office is performed by the bark, L. W. must not expect me, nor your readers, to receive his *ipse dixit* as to the functions of the epidermis, unless supported by some acknowledged authority; nor must he expect to escape by locating the stomata or pores in the bark, instead of the leaves, and then applying to the former what is designed for the latter. This double assumption may be ingenious; but it is not quite in accordance with scientific rules, which require our reasoning to be based on established facts.

I therefore hold, that it is not "empiricism" to advocate the utility of whitewashing trees; L. W. may call the late Mr. Downing, Judge Buel, Dr. Harris, Dr. Fitch, &c. "charlatans" for favoring this practice, but the reader will be at no great loss in determining who best deserves the title. The "arboriculturist of Boston Common," so far from making any "mistake" in applying a "composition of the consistence of paint" to the trees, acted with skill and judgment, violating none of the laws of vegetable life, and with the most successful results. Even L. W., who has such a morbid horror of paint and whitewash, admits the "trees grow and seem to flourish, notwithstanding this mistaken treatment," proving at any rate that such applications are harmless, and that all that can be said against them is, that they are unsightly and unnecessary. On this point, however, facts and observation are altogether against L. W. These have conclusively demonstrated that lime, in the form of whitewash, is a perfect protection against the attacks both of *aphides* and *borers*, just as in the form of powder, it protects rose bushes, cucumber vines, grape vines, &c., against the ravages of their insect enemies. L. W. would admit "a little soap." What! close the "pores," with this viscid substance, which it is far more likely to do, than whitewash; and then, how unnatural to wash trees with soap and water, as if they were dirty babies or coal-heavers! Analogy, instead of being opposed, as L. W. would have it, to the use of artificial remedies and preventives against vegetable parasites, is altogether in their favor, as I have already stated. When human "pediculi" are left to the curative powers of "pure water," for fear of "closing the pores" by oily medicated unguents, it will be time enough to talk of leaving vegetable parasites to the deterging influence of the same agent. A tar ointment cap for *tinea capitis* seems "a priori" as absurd and ridiculous, as a coat of whitewash to a tree, but here, as always, utility is the test, and the only test by which these applications are to be judged. It looks very ridiculous, to be sure, to see the straw effigy of a man suspended in our fruit trees, or corn fields, but when we find that it saves our fruit and corn from the birds, we lose sight of any absurdity or ridiculousness, which might otherwise be connected with such an effigy so situated, and so of whitewash. Its color is quite unnatural to most trees, to all perhaps except the white birch and silver poplar, but it is not unseemly, and if it were, this may well be overlooked, when we remember its great utility.

I do not deny, that we judge very much as to he health and good condition of a tree, by the appearance of its bark, particularly the apple and peach, but that proves nothing in regard to the proper function of the bark, any more than the state of the tongue, nails and hair, in the human subject, prove any thing in regard to the function of these organs. They merely furnish signs by which we judge of the general health, and so of the bark of fruit trees.

In the seventh Vol. of the *New England Farmer*, may be found a paper by the late Dr. Harris, of Cambridge, which contains a full description of the various bark-lice which infest our fruit trees, together with the remedies, and among these whitewash is ranked among the best. In the same writer's "Report on the Insects of Mass.," (1841, p. 202,) he remarks as follows: "The best application for the destruction of the lice is a wash made of two parts of soft soap and eight of water, with which is to be mixed lime enough to bring it to the consistence of thick whitewash. This is to be put upon the trunks and limbs of the trees with a brush, and as high as practicable, so as to cover the whole surface, and fill the cracks in the bark." (Alas! the "pores!") The same intelligent naturalist, in the fifth Vol. of the *New England Farmer*, describes the peach-borer, and recommends the same application to prevent its ravages, and as respects the canker-worms which infest our fruit and ornamental trees, he recommends "troughs filled with oil, to be fastened round the trees," but, "before the troughs are fastened and filled, the body of the tree should be well coated with clay-paint or whitewash, to absorb the oil that may fall upon it." ("Report on Insects of Mass.," p. 337.) So also as regards the various species of *clytus* which are destroying our maples, locusts and other ornamental trees. Dr. H. states that "whitewashing and covering the trunks of the trees with grafting composition will prevent the female from depositing her eggs on them." (Lae. Cit.) Surely, "grafting composition" must "close the pores," if any thing would! But I will not prolong this discussion. I might support my views by even higher authority than I have quoted, but it is unnecessary. I thought that the supercilious flippancy of L. W. deserved some rebuke, and it has been administered homœopathically it is true, but hoping it may have a curative effect notwithstanding. C. A. L.

Berkshire, Sept. 1st, 1857.

IS THIS ANYBODY'S PICTURE?

There's neighbor S——. He's content with his farm, and believes that draining is too costly to be practised, and sheds will not pay as a protection to stock. He leaves a dilapidated fence in front of his dwelling, backed by a row of scraggy peach trees. His wood-yard is the space in front of the house, consisting of an unsightly pile of green logs, to be cut up as occasion requires. His barn! the roof decayed and ragged, with the boards here and there missing from the sides; an open yard, where all winter a herd of lowing cattle may be seen, pinched with cold, and trampling their fodder under their feet. His farming implements! they are few and simple. Go into the road, and there by the fence—where they are carefully placed when not in use—you will see them. An old wagon with an older box stands there, ready to drop to pieces by

its own weight, a three-cornered drag rests confidingly against it, while a little way off is the plow, which, by the wear and tear it has been subjected to, might be referred to any age since Mathusaleh. Neighbor S—— believes one plow will answer for all purposes, and all soils, and thinks new inventions in this line humbugs. In the spring he yokes a pair of poor starved oxen, that have lain out to freeze in the open yard last winter, hitches them to his plow, and proceeds to spring plowing. He usually gets into his field by letting down the fence; an easy task, by the way, for the corners are all down, or thrown this way and that, till he cannot easily make it worse. He usually begins in wet weather, as his team is too light to plow when it is dry. He plows shallow, for his team is not strong enough to plow deep. He don't subsoil, it would take another team. When harvest comes, he wonders why his fields yields but half a crop!

Such are the men—I will not say farmers—who disgrace the pursuit of agriculture. But their number is lessening. Stupid indeed must be the man who in this age does not improve. Every appliance science and art can bring, is placed in the hand of the farmer. He has but to signify his wants, and the inventor is ready to devote years in his service. He but asks and he receives. The leaven is working, and the farmer for intelligence stands equal to the best. If he does not, then *he* is to blame. If he will not read and think, if he will not strive to improve, then he merits contempt, and should be degraded, not only by other professions, but by all true farmers, as a reproach on the honor of their calling.—*Ohio Cultivator.*

For the New England Farmer.

WINTER WHEAT.

FRIEND BROWN:—Please accept what gives me pleasure to lend—a helping hand—when I see you travelling and furnishing editorial correspondence, in addition to all the office labor, for a class of your readers just now too busy to visit, but who welcome and read your periodicals, furnishing so many appropriate suggestions. These often remind me of kindred labors, experiments and items of knowledge thereby acquired, which to many were questionable.

More than thirty years since, when in Albany, N. Y., I bought two bushels of very fair winter wheat, which it was said "would not blast," having determined to try a crop, though at that time I had not known any to be raised in old Lancaster. For this I plowed two acres of clover in bloom on a piece of flat, loamy land, near the house, to the astonishment of all the neighbors, who said, "what a pity to lose such a beautiful crop of clover, worth more than the wheat will be." The last of August, after sowing the wheat, (one bushel to the acre,) I harrowed it very thoroughly, and gave it another full seeding of clover. This daring experiment was watched narrowly till harvest time, when every neighbor offered to come and help reap it; it was very tall and even, with heavy heads, bright as gold. All agreed it must be saved for seed—the whole of it. "Yes, yes, you must let me have some of it." One tied it over his head, to show its height. Of this first crop, I will only add, the fame and the seed were widely spread. I have continued to recommend and practice sowing winter wheat with invariable success. In later years, immediately after mowing, with a Michigan plow I turn over and give a top dressing of fine manure, and about the first of September sow a plump bushel per acre of the very best seed from the West, changed once in two or three years, soaked in brine, and after draining, strew in slaked lime—harrow thoroughly and roll. Early as possible in the spring, I sow clover, and go over it with a light, sharp harrow and roller, to replace any disturbed roots; then give it a bushel of plaster and two of ashes mixed, to the acre.

BENJAMIN WILLARD.

Lancaster, 1857.

THE CHEMIST IN THE LAUNDRY.

Washing has for its object not only the removal from our clothing of accidental dirt, but also to carry away certain ammoniacal salts, the products of perspiration, which are absorbed from the body by all the clothes that we wear, especially those nearest the skin. A change of under-garments is essential to health on this very account, and the art of washing is more useful in removing the hardened perspiration from the cloth (to which it clings most pertinaciously, like the matter of contagion) than in removing the superfluous dirt which merely offends the eye. Until recently, the laundress's first operation was to prepare "a ley" of potash, which she did by putting wood ashes into a tub having a perforated bottom. The tub was then filled with water, which, trickling through, dissolved in its course the potash contained in all wood ashes. This process is still extant in some parts of the country, especially where wood is used for fuel.

The starting process of washing now is to prepare a ley of soda. Hard water requires more soda than soft; and, when rain water can be procured, alkali may be dispensed with entirely. The utility of soda or of potash in washing arises from the power these alkalies possess of uniting with grease of all kinds, forming a soap; and to disunite the ammonia of perspiration from the clothes, thus purifying the fabric and rendering it capable of the like absorption when again worn. This important action has hitherto been unnoticed. Now, although we admit their great utility, we particularly caution all parties not to use too much of these powerful alkalies, because cotton fabrics are partially dissolved by a strong hot soda, potash, or lime ley. It is to this cause that the "bad color" may be attributed, which the housewife now and then justly complains of in the linen. When the outer coatings of the filament of the fabric are thus acted upon, they are quickly influenced by the air, and become of a yellow tint.

There is another cause of "bad color," and that is an insufficient supply of water, or washing too many things in the same liquor. This gives rather a gray tint. The yellow color is, however, the thing to guard against, as this partakes of a permanent evil; and we mention it in particular, because there are strong washing fluids sold containing lime and soda. In nine laundries out of ten, too much soda is already used; we need not, therefore, desire to increase the evil.

Many laundresses, when they hear complaints of the articles they send home, will make their alkaline ley a little stronger next washing-day, and thus unwittingly increase the evil. A judicious use

of soda or pearl ash is highly beneficial, and a saving of labor; but, if in excess, is very injurious.

The strong lixivum, recently recommended for washing linen, has long been known to those who require to cleanse metals from impurities on the surface only. Printers, for instance, may use it with safety to cleanse the face of their type from the unctious ink used in printing, because the ley is not strong enough to affect the metal. The very low priced soaps are by no means the cheapest in use; and they also impart an unpleasant odor to the linen, which cannot be got rid of.

The use of "blue" in rinse water is too well known to need comment further than to our purpose. The ordinary blue is a compound of Prussian blue and starch. The color that it gives merely covers the yellow tint of the goods, without doing more. We would suggest the use of pure indigo instead of the common blue. This advice is founded upon practice as well as theory. Indigo, in this operation, is without any bad action on the fabric. Persons employed in the "indigo department" of the docks have the whitest linen of all people in London.—*Scientific American.*

PROPER TIME FOR PRUNING.

A writer in a recent number of the *Country Gentleman*, who calls himself an "Observer," seems to be somewhat unpleasantly moved by a few remarks of ours on the subject of *pruning*, in the *Farmer* of June 27, 1857. His pen certainly "doth lack some gentleness," for he prunes us as with a dull knife and a rusty saw! The title of "*Observer*," which he has chosen, is a misnomer; he cannot have been an *observer* of the orchards of the country, or he would have seen the effects of *ill-timed* pruning in most of them, of thirty or forty years of age. He cannot have *observed* the comparative effects of spring and June pruning, or he would have learned by that observation and comparison, that *there is* a great difference in their effects upon the tree. Neither can he have carefully *observed* the contents of the numerous journals which treat of agricultural subjects, or he would have learned from them that "injurious results" do "originate" from spring pruning. We think, therefore, that our critic must withdraw the title he has assumed until he becomes better acquainted with the agricultural journals of the country, and the effects of spring pruning on apple trees. He has our thanks, however, for *observing* our article, and for his remarks upon it, for *rasping* an editor a little occasionally, is as good as soap-suds and scrubbing for a fruit tree.

To retain the position which we occupy in the article to which he objects, we refer him to the pages of the journal in which he writes, viz:—*Albany Cultivator* for 1844, page 316; for 1852, p. 402, see opinions of the editor; for 1854, p. 217. See Downing's Fruits and Fruit Trees of America, p. 31, sufficient authority in itself. See also *N. E. Farmer*, giving the opinions of different persons,—for 1849, p. 112, 226; for 1850, p. 282; for 1851, p. 389; for 1852, p. 459; 1853, p. 544; for 1854, p. 38; for 1855, p. 278; for 1856, p. 84. See also Loudon, Lindley, and nearly all the fruit cultivators of this and other countries.

We were about to repeat, once more, our reasons for not pruning in spring, when, in looking over our exchanges, we found the following in the *Country Gentleman*, which we give as a sufficient reply to our critical "Observer."

BEST TIME FOR PRUNING.

MR. EDITOR:—In your number of July 23, a correspondent expresses surprise at observations of the editor of the *N. E. Farmer*, on the subject of pruning fruit trees. The article to which allusion is made, I have not seen. Judging, however, from his remarks, I conclude that the editor of the *N. E. Farmer* has broached no new theory. The pruning of fruit trees in the winter, and especially in the spring, when the sap flows with rapidity, is often attended with unfortunate results. Owing to the escape of the sap in the latter case from the naked wound, dark discolored streaks are often perceptible on the bark beneath. In some cases I have seen these streaks of discoloration extending from two to three feet, causing the bark to die, and leaving a naked strip of dead wood. In the case of winter pruning, these effects are not so notorious; probably owing to the fact that the pores of the wood at the amputation have time to contract and shut in the sap, similar to the grape-vine, which must be pruned before spring, or left until the leaf is somewhat expanded, when it may be done again with safety. Although the winter season of pruning may not be so objectionable, yet the long period between the season of pruning and the time when the tree is in a state to cover the naked part with new wood and bark, often leaves the amputated part protruding an inch or two beyond the retiring bark, which has dried up about the circumference of the wound.

Now these effects are avoided by pruning in time, when the tree is prepared to commence at once the process of healing, which it certainly performs, if in a healthy state. The philosophy of the operation I suppose to be this, viz: That before the tree can produce bark, wood or fruit, the sap must be elaborated in the leaf. Consequently, if the pruning be performed at any time after the fall of the leaf, there can be no healing process take place until the season of leafing comes round again.

R. M. CONKLIN.

Cold Spring Harbor, N. Y.

HEALTHFUL DIET.

I am one of the lovers of the *Homestead*; as I am "roaming," I have but just now had an opportunity of reading sister Flora's article upon good living and cheap at that. I can hardly agree with her, that men, and women too, are no better than animals; but I do, that to keep them in a happy state, we must attend to their stomachs; and it is most effectually promoted by supplying them with nutritious, healthy food; such as will render them hardy and enduring, rather than sickly and effeminate; not give us dyspepsia or the gout. It is truly wonderful, that there is so little crime commit-

ted, when the general system of dieting is taken into account. There are but who few know the real original flavor of food, it is so "rendered palatable," as it is termed, by condiments; and a frightful source of what has become the most prevailing disease in this country—Dyspepsia. If asked how bread tasted without butter, they would be like the man that boasted, he could call any beverage by its right name by tasting with his eyes shut, which he readily did until water was presented when he had to own that it was something beyond his comprehensions. It would certainly be for our interest to keep our husbands' stomachs in a healthy state, but really, I would not dare guarantee that if I were to furnish him such *delicious food* as those *pates*. When we take into account the manner of "fattening" these geeses' livers, we shall conclude there would not be much difference in the size between a sheep's liver, and a goose's liver. The usual practice is to confine them in a warm place, by fastening their feet to a board, so that it is impossible for them to move at all, then they are literally stuffed with food, until they are obliged to kill them to *save their livers*, and of course the liver becomes enormously enlarged by receiving a great amount of waste and effete matter that would have been thrown off by exercise, so that it is nothing more or less than a diseased mass.

Very few persons understand, or ever dream of the effect of diet upon health; physical and mental. It has much to do with our morality even. Is any one in a condition to think clearly and act judiciously, after dining upon at least a dozen articles, and each one composed of as many more, to say nothing of the beverages that are drank in place of that which is furnished by nature, and the only one that will effectually allay thirst. The time is coming when we shall all see the necessity of adopting a natural unconcentrated diet, if instead of the puny, half-made, and short-lived race, we would have noble men and women.—*Homestead.*

For the New England Farmer.

THE PIPE OF WAR.

The calumet, or pipe of peace, was emblematical, perhaps, of the burning of enmity and hostile feuds, and puffing the dark vapors thereof to the winds. But the tobacco-pipe is ever at war with the life of the smoker. The fumes of the pipe disperse through —pervade every part of the body. Every organ of our system is affected by this poisonous vapor, that we inhale from the pipe. In the process of smoking we breathe no pleasant atmosphere. For the time, we cease to breathe the pure air of heaven.

God has made an atmosphere most suitable for our breath or respiration. By this atmosphere, through the agency or operation of the lungs, our blood is purified. He that mixes with this purifying element the fumes of the pipe, must doubt the efficacy of God's purifying element—must doubt the wisdom and providence of God—or he smokes in ignorance and contempt of His physical laws. I think this natural element which God has abundantly supplied for us cannot be improved upon by man.

Tobacco is narcotic and deadly in its effects. Although this smoking, or chewing, or snuffing of tobacco, seldom, if ever, produces immediate death, it so deranges the organs of life, so poisons the blood, that death comes on apace. Every organ—nay, the whole system—has to battle with the effects of the tobacco vapor. Our digestive organization and circulating system are spread and coated with very delicate and highly sensitive nerves, designed, doubtless, to be operated upon by the stimulus of wholesome, suitable food; they are injured by any unnatural irritation.

Whence cometh this sinful practice?—this sin against God's laws of health and life. It comes, alas, of the folly of the irrational desire of being fashionable—of doing as others do, notwithstanding the pernicious consequences to one's self.

It is injurious to the complexion, teeth and personal appearance, as well as the internal organization, to indulge in the pipe. The lungs, the most delicate of our organs, are the most immediately affected by this habit. One has no reason to feel proud, though seemingly so, that he can smoke. Wisdom or talent is not necessary therefor, but folly simply. A fool can smoke a pipe or a cigar.

P.

For the New England Farmer.

CUTTING POTATOES.

The days for painting and varnishing trees have past away. Men have found that it is a wrong way to improve the growth of trees to besmear the pores of the bark with pitch, paint or whitewash. If such a coating had been best, the God of Nature would have provided a similar coating by some natural process, we believe.

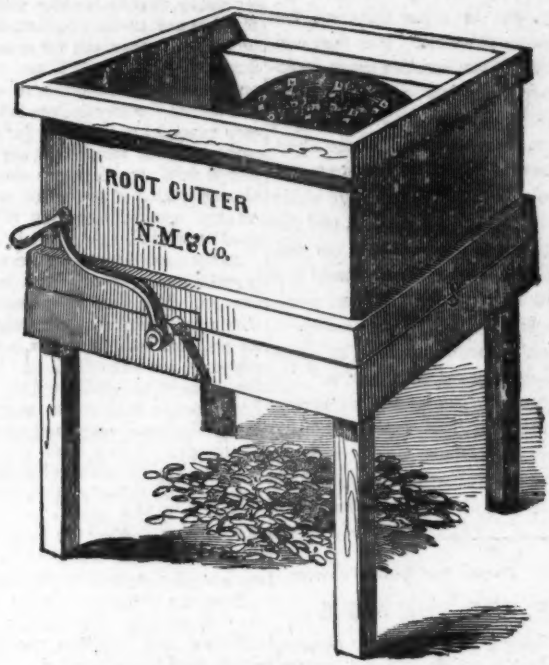
Men may be wise enough to let seed potatoes be as the God of Nature has made them, we think, ere long. The juice and nutriment of the seed is necessary to give the natural and best support to the young sprout. It has peculiar natural properties and nutriment for the plant in its first and most tender state. With the same propriety we might crack the kernel of corn and save all but the chit or sprout portion for bread. When a potato is cut, the juice soon exudes, and the pieces perish and give no support to the plant or sprout, and the sprout is thus forced to draw its support entirely from the earth and air.

To wean animals immediately from the nutriment prepared by nature for their support and growth while young and of tender age, would injure the stock, though they would grow by other food prepared for them by man from their births.

Girdling trees injures the trees, though it may retain for the season the sap, for the forced growth of the fruit and tops.

Cutting the potato separates the sprouts over more ground; the yield may be greater on a poor soil, but the potatoes must lack vigorous seeds. It may be the cause of the rot, after a long continuance of the practice of cutting the seed. It is injurious to the size of the potato to overseed the hill. In old times, one large or two small potatoes was the rule for the hill of seed. The small potatoes have as many sprouts as large ones, and consequently, the potatoes would again be small. The better way is to put one whole potato in a hill, and manure enough to give them a good growth, not too large, and thereby occupy less land. P.

ERRATUM.—In the article giving an account of Mr. Lovering's crop of wheat, it was stated that it was sowed on the fourth of August—it should have read fourth of *September.*



WILLARD'S PATENT ROOT-CUTTER.

Several years since there was quite an animated discussion in our columns on the question, "*Whether it is profitable for the common farmer to raise roots to feed to his stock?*" Able and experienced writers entered the lists on both sides, and the discussion called out several important facts in relation to the various modes of culture, to the best kind of roots, and to their comparative value with other articles of food for stock. All were not convinced, by this discussion, of what we consider to be a fact, viz.: That every person keeping one horse or a single cow, can keep either better and cheaper, by using a portion of roots for their feed, than by using hay and grain only. We take into consideration three points,—the growth of the animal, if young, the labor of the horse or the product of the cow, and the health of each. Persons engaged in rearing sheep, for the production of either wool or mutton, find roots nearly indispensable to a profitable result; indeed, the turnip, in England, is the article upon which sheep are fatted that produce mutton which is scarcely equalled by any other meat brought upon the table. We have fatted a seven hundred cow upon thirty bushels of flat turnips, with as much timothy hay as she would eat during the time of eating the turnips.

The labor in root-raising, however, must be done as far as possible by the aid of a light horse and suitable implements.

Another objection to raising roots, has been in the labor required to get them in proper condition to feed to horses, oxen and cows, and especially to sheep and calves. Mr. CAMPBELL, of Westminster West, Vt., who rarely winters less than five hundred sheep, recently informed us that he found roots indispensable, but that the process of reducing them to a proper size and *shape* to be fed to the sheep, was nearly sufficient to discourage him from cultivating the crop. He and his brother, resorted to various devices to accomplish this, but it was not until they had experimented many years that they found a machine that would answer the purpose desired. At length, they found the cutter which is represented by the engraving at the head of this article; it was in a rude and imperfect state, but their practice soon suggested such improvements as have brought it into *one of the most effective and satisfactory machines that we have ever seen on the farm!* When we say that any common farm-hand possessing the ordinary strength of a man, can cut *twenty-five bushels* of turnips in a single hour with it, and cut them fine, too, we believe we are entirely within proper limits. We can cut a bushel of turnips in two minutes easily with it.

Our associate, Mr. HOLBROOK, in a description of the machine, says:

"This cutter is a recent invention. It cuts vegetables very rapidly, and in slices thin and fine enough for sheep, lambs or calves. It is very easily operated, so that a boy can turn the crank rapidly. The inside arrangement is such as to prevent all liability of clogging the cutter while working it, and the knives are easily repaired. The vegetables, after being passed through the cutter, may be mixed with straw, coarse hay, or other cheap forage which one would like to dispose of economically, and the mixture, after lying a little time, so that the forage may become impregnated with the scent and juices of the sliced roots, will be greedily and wholly consumed by the stock. Pumpkins (if not hard-shelled) are easily cut with this machine, so as to be conveniently and quickly cooked for swine."

It would be a matter of economy for any person feeding out two or three hundred bushels of roots annually, to purchase one of these machines. They are very thoroughly made, and sold, singly, for $10, by *Nourse, Mason & Co.*, Quincy Hall, Boston.

For the New England Farmer.

YOUNG MEN, AND THE FARM.

MR. EDITOR:—Being a reader of the *Farmer*, I find very much valuable and interesting matter, which is of vast importance to each and every individual that is so fortunate as to peruse its well-provided columns. It is my special purpose at the present time, through your permission, to lay before the readers of your paper a subject which I consider as being invaluable, and one every way well worthy of the notice and of the serious consideration of all who may observe and reflect upon its utility. I address my article "To Young Men," and it is hoped that it may meet the patient eye of many who are about to choose an occupation for life; especially is it recommended to the serious attention of those who are thinking to choose an occupation for the *honor* that it contains. It is further hoped, also, that its importance may come under the observation of those employed in different stations, farmers and mechanics. More *especially* is the attention of the young "farmer" required, and to weigh the substance of its importance.

First, I speak of the "tiller of the soil," as being one who has chosen an occupation worthy of the worthiest, and one which has all of the honor that they or *any* one need ever to have. It is not my intention to speak ill of any honorable vocation, or to say what one *must* or *must not do*; it is my purpose simply to speak in defence, or advocate the practical utility of one great and honorable occupation of life, namely, the avocation of the farmer.

The great by-word now-a-days, is a "profession," which rings in the young man's ear, and paints on his plastic imagination many brilliant, but false pictures, of distinguished honor. He strives to be the possessor of an education, which he vainly imagines will be *sure* to bring him honor *any where* but on the good, old mountain farm; he gets a thorough education in Greek, Latin and French, (not so much matter about the English language,) and then he is ready for a "*profession*;" he builds air castles, that he is some distinguished statesman, physician or divine; in fact, he *never* was *made* to be a good farmer, but for *something else*, say a lily-fingered profession. I am not condemning any one's natural capabilities, or saying but what they can choose for themselves, but I *do* say, that many, *very* many leave the farm for occupations *less* honorable, and for which they are not so well adapted. For to fulfil the farmer's duty is no inferior business after all, but one which ought to gain the honest and candid attention of many who are "too good to work."

In the second place, I observe another fact, which prevails among young men in relation to their education. Many are of the opinion that so long as they *must* be farmers, education is of but little value, and that what money was spent for educational purposes was virtually lost. Now this absurd notion should be eradicated as soon as possible.—Farmers are entitled to as good an education as the professional man, and can use it to as good advantage. Young men are wonderfully tempted to render themselves famous, to gain honor and notoriety, by some other means than by laboring in the beautiful garden of God, to plant and to sow, to reap and gather into the garner, that harvest which is the life of the world, and the great sustenance designed by the "Creative Intelligence."

Now my advice to young men is, not to leave the "old man," as you call him, but remain on your old farm, and cultivate the productive vineyard which God gave you for an inheritance; remain among the old hills and mountains, by the side of the deep-shaded forests, through which runs the babbling brook, where you have played by the hour with some loved school-mate, and where you have often roamed in childish sport.

I say remain on the *old farm*, and do your *duty* there, and when your head shall be silvered with old age, you will *never* regret that you have lessened the tide of human suffering, by contributing to their aid a portion of your well-earned, though hard-earned effects. A great part of the distinguished men of our country have been farmers, and after an active business life, they at last, when age began to warn them of their approaching dissolution with life, sought *the farm*, there to end their days in peace.

Remain on the farm, and let that profession go; educate yourselves, that you may be *fit* for the farm. I say remain on the *farm*, and you will observe a truthful conviction, that it is there where *home* will swell every soul with a tender emotion, that it is *there*, where home can be rendered doubly attractive, where in early years you will enjoy more health and happiness by breathing the pure mountain air, where you can drink from the exhaustless fountain, as it slowly bubbles forth from the green hill-side; and in declining years, where you shall spend your earthly pilgrimage with peace and happiness.

Waterford, Vt. F. V. POWERS.

A CURE.—It is said that inflammatory rheumatism can be cured by the following simple method which we extract from a medical publication:—Half an ounce of pulverized saltpetre put in half a pint of sweet oil. Bathe the parts affected, and a sound cure will immediately follow.

For the New England Farmer.

NEW HAMPSHIRE STATE SHOW.

FRIEND BROWN:—By the politeness of Mr. N. White, the superintendent of the State Fair in this place, I am favored with an opportunity of sketching what I have recently seen, on the plains, over which you have so often roamed, in times gone by. By-the-by, Concord is beautifully located on the banks of the lovely Merrimack, containing, as I am informed, about 12,000 inhabitants, with souls as free and pure as the air they breathe. I like to go among such people, who are not so starched up as to forbid an approach within speaking distance. It does one's soul good to meet such cordial hospitality.

Soon after I arrived on the ground, I learned that the ever-ready Gen. Oliver was holding forth in his happiest strain of argument and wit, for the edification of the people of the Granite State. I was too late to hear him. But fortunately, I did hear ex-President Pierce, and were it not for my prejudices, I should judge him, from his fluent and ready speech, considerable of a man. He told the people of Concord that he had returned to live among them; and he still hoped there was left for him, on his native hills, many days of usefulness; and whatever they might say or think, he was determined to till his own acres among them, if he could find such to till.

By the kindness of the late President of the Hillsborough County Society, now at the head of the State Reform School in Manchester, I was conducted through all the departments of the Show —and I am happy to say, that there are some things worthy to be seen, besides those of which we boast so much in old Massachusetts. Here were animals of every class and every variety—chiefly Durhams, Devons and Natives—ay, *natives*, shall I say it? notwithstanding the wisdom of those who deny the existence of such. The uniform testimony, as I collect it from the farmers themselves, *unadulterated* by interest or prejudice, is that the very best animals they can get for milking purposes are from our own New England stock. I have long been of this opinion, and am happy to hear it affirmed by the verdict of the farmers themselves. Tell of the superior cream of the Jerseys, and the superior butter from the Devons, and the abundance of milk from the Durhams—I can find enough of all these, and good enough, without going away from home —and whoever thinks different, possesses more vanity than wisdom. There were many fine animals exhibited, and what is quite extraordinary, the finest bull on the field was brought in by the *Shakers* of Canterbury, who, as a people, are presumed to know least of the value of *such* animals. But so it is, creeds and lives are not always found in entire correspondence.

In the evening I had the honor to meet the farmers of the Granite State—where they were agreeably entertained by Senator Hale and others —and passed a couple of hours very instructively. This morning, all hands were wending their way to the plowing field, escorted by more pieces of *brass* than there were *plows of iron* in the train. This display of sound does not exactly accord with my taste; I had hoped to meet some 40 teams on the plowing field, instead of one quarter part of this number; what were there worked well, but there was not enough of them—and the farmers make a mistake, when they hold back in this important department of labor. I was much pleased with the operation of a *double plow*, built by that veteran artizan, Robison, of Concord. He told me that he had so constructed it, that it would do the work of the common breaking up plow, or the Michigan double plow, as you chose to have it. It certainly did its work as perfectly as could be wished, with a team of four fine oxen attached to it.

I had almost forgotton to mention the favor I had of viewing the highly improved grounds of Mr. Walker, a descendant of Count Rumford, and of one of the early ministers of Concord, who must have been a gentleman of the old school, judging of him by his descendants. Such men are Nature's noblemen, whatever may be their genealogy. On the whole I passed my day most agreeably and instructively at Concord, and when another display is made, "I hope to be there to see." ESSEX.

N. B. I intended to have said something of that veteran teacher of farmers, the late Gov. Hill, of C., but as you know him so much better than I do, I must leave this to your pen. He certainly did much more good by *his farming* than by some of his *other hobbies*, which he abandoned in his latter days to a great extent.

Concord, N. H., Oct. 9, 1857.

AGRICULTURAL FAIRS IN VERMONT.

Since the occurrence of the *State Fair* in Vermont, of which we recently gave some account, several county societies have held their annual exhibitions, which are represented as having been unusually well attended, and in most respects superior to those of any previous year.

As we assured our friends in Windsor county, a few weeks since, that they might expect a good Address this year, we take pleasure in copying the following notice of it from the *Vermont Chronicle.*

MR. FLETCHER'S ADDRESS.

The Address delivered at Woodstock by Mr, Fletcher, before the County Agricultural Society, had the merit of novelty, as well as of ability and raciness. Mr. F. was born upon a farm, and passed his earlier years among farmers. He left his father's house and the circle of agricultural relatives and friends familiar to him, with the comparison between their condition and prospects and those of mechanics—a vivid youthful picture—in his mind; and with a keen practical insight has studied it through the various changes of his experience and observation. His address embodied the result, with adundant illustrative facts.

Mr. Fletcher proposed for consideration the following questions:

What becomes of those who annually leave, not only Windsor county, but every rural district of New England?

Do those who leave farming, get rich faster than those who remain?

Do those who follow other occupations become more honorable and influential than farmers?

Do the families of those who leave farming enjoy advantages superior to those that are brought up on a farm?

Do men of other professions live easier and die later than farmers?

These questions were brought home to the business and bosoms of farmers, and of farmers' sons and daughters; for the case of the latter was treated with clear insight. Nor was the question of emigration forgotton; and in regard to that, as well as other points, Mr. F. spoke of what he had himself seen and known. As a specimen of his practical manner, we notice the following:

Mr. F. takes the circle of relatives, thirty-two in number, with whom he was most familiar in childhood, and inquires into the history and present position of each. The general result is this:

"Leaving out of the estimate three of the youngest of these thirty-two individuals, I class nineteen as farmers and ten as having left the farm. From my knowledge of their affairs, I estimate that the property of the nineteen farmers will average about $3000 each; that of the ten families who are not farmers, about $700, or rather less than one-fourth as much as the farmers."

Cannot the managers of the Society get leave to publish the Address?

MUCH IN A BARN.

Very much depends upon the conveniences and comforts of a barn—especially in this region of *hot* summers and *cold* winters—for a man's success in raising and keeping cattle, horses and sheep. A good cellar is as indispensable to the barn as to the house. In building one this season, we have taken care to have a full basement story, lined with pure granite walls on three sides, one front, the east, being devoted to doors and windows for entrance and light; otherwise, too, the whole is ventilated. There, in the hot weather of summer, our horses, cows, pigs and hens will be cool; and in the cold weather of winter, these, with the sheep, added at that season, will be warm. Probably it will not freeze much, if any, in winter; and one apartment will be appropriated to roots, &c., for the use of stock. A writer in the *Connecticut Homestead* has the right idea on this subject. We give his article:

SHELTER FOR STOCK.

MESSRS. EDITORS:—I have seen several articles the past year in favor of warm shelter for stock, that I can endorse; also your statement that one-third of the fodder is saved by having warm shelter, and will give you my reasons, for I have tried both sides of the question.

Among other legacies left to myself and brother, was a lot of old buildings, and after purchasing his right to the farm, and getting on that delightful bed described by Mr. Beecher, I was in a poor condition to think of building, and had to get along with patching for several years. After making up my mind to build a barn, I said to others that I dreaded the stone work more than the wood work, as I meant to have a basement; they would say, "You don't need a basement; I would not give anything for a basement." I told them that I would not have a barn until I could have a basement.

In the summer of 1853, I built a barn 30 by 40 feet, with 8½ feet basement, the wall two feet thick, made of split stone; one-half of the basement for stables, and the other half for a cellar. Owing to the shape of the ground, I was obliged to have the yard on the east of the barn. The most of the dirt taken from the cellar was used to level the yard, and raise it higher than the ground around it, so that all the water that fell in the vicinity would not run through the yard. The stalls for the cows are five feet wide. The cows are kept in the stables all the time, with plenty of good bedding to lie on. I let them into the yard warm days to get water. They do not leave the yard till turned out to pasture.

The stables are warm; it does not freeze in them, except on a few of the coldest nights—not more than six or eight nights the past winter. The cows hair lies smooth, and shines, and their eyes look bright, in place of dead and sunken eyes, and bristly hair. Their bags are full, and teats full and smooth, when I go to milk them, the same as they are in summer, and they will give a quart more at night when tied in the stable, than when they have been in the yard the warmest days during the winter.

The first remark made by a person coming into the stable in the winter is, "Why, what a good place you have got for your stock; they don't know anything about the cold weather. Your basement is worth as much as the rest of the barn." A person said, "You mess your cows." "Why so?" said I. "O, I can tell cows that are messed; their hair is smooth and shines." I did not mess them at that time.

When I kept my stock at the old barn, my cows would go dry two or three months every winter; now they will give milk till they calve.

The first winter after I built my barn I had a yoke of oxen that lay in the yard till the 1st of February. They had all the good hay they could eat. The next winter they were kept in the stable, fed on stalks and straw, till the first of February, and they were in as good, if not better, order than they were the year before, and did not consume more than half the value of fodder.

I have no floor for my oxen, but level the manure and use plenty of bedding. The cow-stables are filled up about a foot and a half; then a short plank put down long enough for the cows to stand on; strips of boards nailed across to keep them in their place; pieces of plank are put upon them to keep them level. The water runs through and is saved in the litter and manure below, and the cows are dry and clean.

My stock used to range the lots for water, poaching up the meadows and girdling the trees, as some of my neighbors now do. After losing a cow worth $50, I thought it was best to have water in my yard, and I find it pays the cost every year.

If there were no saving of fodder, it is a satisfaction to me to know that my stock are not suffering with the cold weather as we have had the past winter.

I keep my hens in a room in the south end of the cellar, fourteen feet square, with an open shed outside, with the use of the cellar in mild weather. The first winter I put in thirty, and they layed from eight to fifteen eggs every day through the winter. After they had been there fourteen months, I carried out twelve bushels of manure that was as heavy as I could carry. My hens laid every day the past winter. A person that came to my barn said, "Do your hens lay? Mine have not layed an egg this winter." Some persons' hens are trou-

bled with vermin; I have never seen any lice in my roost since they have been there.

Meriden, 1857. W. H. YALE.

FASHION.

BY JOHN G. SAXE.

What impious mockery, when with soulless art,
Fashion, intrusive, seeks to rule the heart;
Directs how grief may tastefully be borne;
Instructs Bereavement just how long to mourn,
Shows Sorrow how by nice degrees to fade,
And marks its measure in a riband's shade!
More impious still, when through her wanton laws,
She desecrates Religion's sacred cause;
Shows how the narrow road is easiest trod,
And how genteelest worm may worship God;
How sacred rites may bear a worldly grace,
And abasement wear a haughty face;
How sinners, long in Folly's mazes whirled,
With pomp and splendor may "renounce the world;"
How "with the saints hereafter to appear;"
Yet quite escape the vulgar portion here.

For the New England Farmer.

THE CANKER WORM.

As the season is near at hand when the first detachment of the army of the canker worm begins its march, a brief statement of the best method of combating them, that I have yet tested, may be of service to some of your readers.

It has heretofore been a matter of surprise to many growers of fruit, that the grub of this pest should so easily pass over the coating of tar, even when freshly applied to the trees. But at the time of day when the observation is usually made, especially if a warm or fair day, or if a warm finger is applied to the tar, the progress of the grub would seem to be difficult, and indeed they are often completely arrested by this method; but the instinct of the grub is so strong that the effort to ascend the trees is continued at all hours, day and night. If, however, the experiment is made early in the morning, or at night, it will be found that a feather, if lightly passed over the coating of tar, will not adhere, and when this is the case, the insects can pass over, and if a little of the tar should adhere to them, it does them no injury. For this reason, as well as for the injury which is frequently done to the trees, I have abandoned the use of tar altogether, and have adopted a substitute which is cheaper, requires less frequent application and is much more efficacious. The substitute is rosin varnish mixed with whale oil, in the proportion of one quart of oil to five gallons of the varnish. This mixture I have tested the past year on both fruit and ornamental trees with great success.

The mode of application is as follows: Procure a sufficient quantity of strong tailor's list, of good width; cut it in pieces to go once round the trees to be protected, dip each piece completely in the mixture, draw it firmly round the tree, and secure it with a small nail or tack; in large ornamental trees or old fruit trees with a rough bark, a sufficient space should be first shaved down in order to secure a close fit; once a week, or subsequent to heavy rains, an application of the mixture should be made with a brush to the lower edge of the list, and this can be done much more rapidly than any application of tar. In addition to the saving of time and money, there is a much greater certainty in the application of this mixture, for the smallest particle on the grub will eventually destroy it, should he be able to pass the Rubicon of the saturated list. In order to give the lower edge of the list a projection from the tree, it would probably be an improvement to place first, under the list, or around the tree, a narrow strip of cotton batting, or any substance which should give the lower edge of the list a projection of half or quarter of an inch from the tree. I believe it is ascertained that the grub of the canker-worm commences to ascend the trees in October, and continues through the winter and spring. Yours, E. H.

EXTRACTS AND REPLIES.

PURPLE WASP.

If your correspondent, "John Dunlap," should carefully open, at intervals, a single cell, instead of destroying the whole fabric, he would discover many interesting facts in regard to these insects. He would find that after they have constructed a cell and made it delicately smooth inside, they deposit an egg at the farther end. They then catch the spiders, and fill the remainder of the cell with them, previously rendering them torpid by some process best known to themselves. A maggot or grub soon hatches from the egg. It sustains its life by devouring the spiders, which, owing to their torpidity, are unable to make resistance.

At about this season of the year the grub has finished his growth, devoured the stock of spiders, with perhaps the exception of a few limbs, and is changed into the chrysalis state. It remains in this condition till warm weather returns next year, when it comes forth a perfect insect. H. J. F.

Cambridge, Oct., 1857.

CUTTING BUSHES.

"Cutting bushes in the old of the moon, when the sign is in the heart, in summer, will kill them." When a young man, I read this and determined to test it on a field of thirty acres, covered with shrub oaks. For this purpose I engaged a lot of hands to help me on that day, which occurred in August. We went over the whole, and subsequently found it even so. To this day the field is clear of bushes. I am not so confident as to the effect of the moon or signs; but when the root is weakened by the growth of the season, and by the flow of the last sap after cutting all off in a hot day, I can see it is a deadly business. Let your Pawtucket subscriber try it, and he will find it a well-timed job for the intruders. So says many years' experience of

Lancaster, 1857. BENJAMIN WILLARD.

A NEW GRAIN OR GRASS.

I send to your place a specimen of what was to me a new grain, with a request that you would give the name of it, and such information of it as you possess. B. G. DAVIS.

Concord, N. H., Sept., 1857.

REMARKS.—The grain was duly received and examined, but we have not yet been able to determine its name, or any reliable information in relation to it.

THE PURPLE WASP.

The purple, or mud wasp, commences building her nest or cell at one end, leaving a round hole sufficiently large for her to go in, and continues her work until it is a little longer than her body, then places her egg at the bottom of the cell she then collects spiders and deposits them in the cell until it is full; at each deposit she chants a sort of lullaby over her victim, which lies quiet in its prison until the cell is filled; the wasp then brings a ball of mud and seals up the mouth of the cell. She then proceeds to build other cells adjoining, sometimes to the number of eight or ten. By the time the last one is finished, the maggot contained in the first becomes a wasp, and is ready to leave its cell. When the maggot is hatched, it commences feeding on the spiders, killing no faster than it requires food; sometimes a dead spider, partly eaten, may be found in the cell. If these cells are opened soon after the last one is finished, it will answer Mr. Dunlap's description; there may be found wasps in some cells, and nothing but spiders in others, if the egg be overlooked. J. W.

Antrim, N. H., Oct., 1857.

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INQUIRY ABOUT FRUIT TREES.

In your paper, some months ago, I noticed a piece entitled, "How to get fruit trees to your liking." Your correspondent says, "In October or November take a branch of an apple or pear tree, such as suits your taste, take off to the third year's growth, cut it smooth and rub it on a red-hot iron, so as to scorch and shut the pores of the wood thoroughly, then bury it in the ground, all but the last year's growth. If placed in good ground and well taken care of, you will have good fruit in five or six years."

Now I would like to make to the inquiry, which month is the best, or whether it makes any difference. Answer this, and oblige an

Oct. 14, 1857. HONEST FARMER BOY.

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BEET CULTURE IN FRANCE.

In 1856, 282 beet root sugar manufactories in France produced 110,279,179 lbs. sugar. These factories will, this year, 1857, produce 240,000,000 lbs. sugar.

In addition to the produce of sugar, they manufacture the beet into brandy; in 1854–5 the value of this distillation was estimated at £2,000,000, or in American currency to about $10,000,000. This liquor has increased as the grape has decreased; from the residuum an immense quantity of mutton and beef is fatted; and from their manure larger quantities of wheat are grown.

See "Journal of Agriculture" and the "Transactions of the Highland and Agricultural Society of Scotland," No. 57, p. 49. OBSERVER.

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FALL OF SNOW AND RAIN.

MR. BROWN:—By the kind attention of my friend, Mr. Lamson, of Salem, I am able to correct two errors made in the statement of meteorological facts, published in your paper of September. I am the more anxious these corrections should be made, because facts that are not facts are worse than no information at all.

For the year 1849 the depth of snow that fell was 20.75 inches instead of 41.75 inches, as printed. For the year 1850, the quantity of rain that fell was 51.03 inches instead of 56.03 inches, as printed. Both of which errors arose from a misapprehension of the figures.

The quantity of rain that fell during the summer months, the present year, was 15.25 inches; a greater quantity, than in either of the preceding summers, excepting that of 1856, when it was 17.68 inches. J. W. PROCTOR.

South Danvers, Oct. 13, 1857.

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TIME TO SET OUT FRUIT TREES.

MR. EDITOR:—I am often inquired of for the best time to set out fruit trees. I prefer the spring to autumn, as they are not so likely to injury from frost; but either time will do better than none. I find by my memoranda that the last week in April and October has been my time, and they have always done well. NORFOLK FARMER.

HYDRAULIC CEMENT—ITS USES.

This valuable article is beginning to be more extensively known and used than formerly, and we are satisfied that it requires only to be universally known to be universally applied to uses hitherto unthought of, even by our most practical builders. A correspondent observes:

"I have been manufacturing and using hydraulic cement for a number of years—consequently I feel as though I am capable of throwing a little light on the subject. It is in general use for building cisterns, cellar bottoms, cellar walls, a cheap and durable pipe for conveying water, mill flumes, mill dams, houses, &c. Cement makes a much stronger mortar than quick lime, and will set as hard as a rock in the water. For plastering the exterior of buildings in imitation of stone, and for plastering the inside of houses, it makes a very hard, smooth surface, capable of being washed with soap and water without injury, and presenting a smooth unabsorbing basis for paint.

CISTERNS are variously constructed. The best way, however, in my opinion, is to excavate a hole in the ground in the shape of an egg, with the little end down, plastering on the ground, building an arch with brick to form the covering. Cisterns are more frequently covered with large stone or plank, which will answer a very good purpose. Five bushels or 300 pounds, which would be in a barrel of cement, is sufficient for a cistern containing 30 barrels of water.

CELLAR BOTTOMS.—Take spalls of stone or coarse gravel and cover your cellar bottoms to the depth of four or five inches; make your mortar into a thin grout, and smooth the top of the same with a trowel. This will make an excellent bottom, and is an effectual remedy against rats.

PIPE.—Excavate a ditch of sufficient depth, and bed down the mortar made of cement; then take a leather bag four feet long, of the size you require, filled with sand, which you have prepared for the purpose. Lay down the leather bag on the mortar, and build over the same with mortar. In a short time it will set sufficiently, so that you can draw the bag forward, and build over as before. This pipe will soon bear a great pressure of water, and is a cheap and durable pipe.

MILL DAM.—Build a wall 1½ or 2 feet in thickness, taking spalls of stone or clear gravel; make

your mortar into this grout, and mix it well with your gravel. It will be necessary to have a frame of one plank on each side to hold the grout and gravel, until it is set; then make a slope wall on each side, or any other plan to form strength to hold the weight of the water.

Houses have been built on this plan which nothing can surpass for cheapness, durability, and beauty. For plastering dairies and forming water courses for milk pans, it is admirably adapted.

DIRECTIONS FOR USE.—As a mortar, two parts of coarse, clean, sharp sand, to one part of cement —mix together dry, and temper with water; mix in small quantities, as it hardens quickly. If loamy sand is used, a greater portion of cement is required. River or creek-washed sand is the best. When used for plastering cisterns, by plastering on the ground, three coats of one-half inch thickness should be put on, one coat each day, until completed—scoring the first two and using more cement in the last coat, which should be well smoothed. Daily sprinkling with water for ten or twelve days will strengthen the plastering of cisterns; and this should be done before the cistern is filled with water. Care should be taken to procure fresh cement; that which is old, is nearly worthless."—*Tennessee Farmer and Mechanic.*

For the New England Farmer.

DESTRUCTIVE INSECTS.

MESSRS. EDITORS:—From the time of Moses, (and I have no authority for stating how much before,) the plagues of animals and annoying and destructive insects have had their periods of devastations and afflictions, from Cape Horn to Nova Zembla; no nation being exempt from their unwelcome intrusions. People in all latitudes are necessitated to exercise vigilance, and use precautionary measures of defence, or be deprived of sleep by tormenting nightly visitants, which usurp and occupy every crack and cranny they can thrust themselves into about our buildings and beds. The skipping, dreaded flea, the ill-favored, skulking and cowardly bedbug, the dismal toned mosqueto all lie in ambush ready to make an attack upon the weary traveller, or tired laborer, on their retiring, to be disappointed of an expected night's rest. We read of the devouring locust, and recently, of grasshoppers that lay waste territories of grain and other vegetation, and we read of flies and other vexatious insects, that have the ill manners to surround the table of ladies and gentlemen, and in their hunger, thrust themselves into their faces, eyes, mouths and coffee-cups without any apology.

Among all the plagues of Egypt, I have no recollection of worms being included in the variety of pestilences that afflicted the pro-slavery monarch, but undoubtedly, worms "committed depredations" then, as well as now, as there is no new thing under the sun. The great variety of worms which annually infest our fruit and fruit trees, and other growing crops, may well compare with the plagues of Egypt in their insatiable depredations—the canker worm, the borer, the curculio, the cut worm and endless varieties of these voracious insects sent upon us for our sins, or to do some good we are unconscious of, and for which we can hardly feel grateful. Among this great variety of worms, the devourers by wholesale and the princes of scourges, are curculios and canker worms, which seem to defy all means to resist their propagation, or effect their destruction; their ravages are directed to our fruit trees and fruit, more particularly to the apples this year, of which they have nearly made a triumphant harvest. I have lately seen some remarks in the *New England Farmer*, made by Mr. Fletcher, of Winchester, which struck me very forcibly, on the mischievous curculio; his apprehensions were, if I have not forgotten, that they might exterminate the apples in a few years if they multiply in a ratio corresponding with a few of the last years. There is a natural law operating among reptiles and insects, and all animals which multiply to excess, which causes nearly their extermination periodically; whether they eat themselves out of "house and home," or whether the plague or cholera prevails among them, and sweeps them off; the canker worms and rose bugs, from a few in numbers, multiply so rapidly that their period of increase lasts but about three or four years, before they become so numerous that the apple trees and many other plants are denuded by their voracity, and then from starvation or disease, they decrease and almost disappear.

Between the years of 1813 and 1817, the canker worms commenced their depredations on a fine orchard of mine in the town of Lawrence; I applied tar, but with no good effect; the third year they completely consumed all the leaves on my apple trees by the time they (the worms) were half grown, and from the trees they descended to the ground to find something congenial to their voracity, but jumping from the frying-pan into the fire, they all perished. I saw no more canker worms on my orchard afterward; thus we see that their numbers and voracity wrought their own destruction, and I believe it the best way to get rid of them. The curculio I am in hopes will share the same fate from the same cause. If the law of rapid increase does not operate to the extermination of the curculio tribe, my apprehensions will correspond with Mr. Fletcher's, but I have known the canker worms and rose bugs to have their waxing periods, and waning periods almost to extermination, a large number of times within my remembrance, and hope the same law of rapid multiplication will operate to the extermination of the curculio. S. BROWN.

North Wilmington, August, 1857.

STONE DRAINS—CONSTRUCTION, &c.

EDS. RURAL:—In the *Rural* of the 20th of June, I saw some inquiries by M. Waterman, respecting the construction of stone drains, and being both willing and anxious to receive and impart knowledge obtained by experience, I beg leave to contribute any information calculated to advance the science of agriculture, and will therefore give my little experience in the way of stone drains. The best mode of construction that I have built upon is to sink to sufficient depth—generally about three feet deep, three feet wide at top and one foot at bottom—taking care to keep the fall at bottom as uniform as possible, which can be regulated by a spirit level. Select from the stones to be used those apple-seed shaped, or with one pointed or small end, of a size say from six to twelve pounds weight, setting all over the bottom of the drain, small ends downwards, taking care to place them

in such a manner that the outer ones serve as keys against the walls or sides of the drain. This precaution is necessary to prevent the falling of the mass of stones in case of washing or being undermined. After thus arranging the first layer of stones, I then (rather carefully) hand-pack a layer of smaller stones to the depth of 8 or 10 inches, then larger stones may be used, after which a coat of coarse gravel, (screened is preferable) then a layer of evergreen brush, before filling with earth. Particular attention should be paid to the mouth or lower ends of drains, as the effect produced by negligence at this point is attended with serious consequences, and the object for which the drain was intended unattained. CANADIAN.

Brighton, 1857. *Rural New-Yorker.*

For the New England Farmer.

SMALL POTATO EXPERIMENT.

MR. EDITOR:—It is considered a point beyond dispute, that fully matured seeds of all kinds are better, and more certain to produce good results, than seeds not fully matured. Is this *the fact*? Is there not a point short of full maturity, at which, if seed be gathered, *better* results may be obtained than from fully matured seeds? There are some facts that would seem to favor such an hypothesis. Mr. A. informs me that last year he obtained a new variety of sweet corn, but at so late a date that he had but little hope, if he planted that season, he should be able to test its value; he planted it, but the frost came while the corn was yet "in milk." Unwilling to lose the seed, he gathered a few ears, dried them in the sun, and this spring planted them; much to his surprise every kernel came up, and he had as fine a field of corn as he ever saw, early, large and full.

Mr. B., celebrated here for his fine and very early sweet corn, always gathers his corn for seed while it is "in milk," and never fails to have good crops.

For many years I have been in the habit of looking over agricultural papers, and have noticed the various statements made in relation to large and small potatoes, and the very dissimilar results of experiments made with them. It occurred to me, that the *size* of the potato had less to do with the success of the experiment, than the *state of maturity* to which it had arrived, and that it was only from *unmatured* seed that satisfactory results had been obtained, when a *small* potato experiment had resulted favorably.

To test this, on the 28th of July, 1856, I planted 20 to 30 hills of potatoes, with such seed of the crop of 1855 as could be found in my cellar at so late a date. The seed was very poor, *very small*, and of various kinds; Dovers, Danvers Seedlings, Long Reds, Chenangoes and English Whites; a little manure was put in each hill—and they were hoed once. About the 10th of October they were dug; and the product was 9 pounds of very small unripe potatoes, from the size of a hickory nut to the size of a pea. [If one wishes to judge of the size, let them first select about 150 potatoes of the size of a hickory nut, and then find 650 others so small that the whole 800 potatoes shall weigh but 9 pounds.] These were carefully put aside, and at the usual time this spring were planted; the soil a light, sandy loam; potatoes had been grown on the same spot for two years previous, manure spread on, and plowed in; no extra manure, and no extra labor on account of the experiment. The land measured 30 by 40 feet, and the potatoes were planted so as to make 190 to 200 hills—an average of 4 potatoes being put in each hill. The man who planted them was very unwilling to do it.—"'Tis the most foolish experiment I ever heard of, planting such potatoes as these, and expecting to get anything from them; 'tis a waste of time as well as land; you had better throw them away, and plant something that will come to something. You wont get so many as you plant, and these ha'nt good for nothing," was his observation, when told to plant them. The work was done, however, the potatoes grew, matured, and were dug the last of September. The result as follows:—

I could not find enough potatoes of the size planted to make up the amount used for seed, but put in larger to make up the sum; so, say,

Potatoes of same size as seeds	9 lbs.
Potatoes ¾ of an inch to 1 inch in diameter	30 lbs.
Good sized planting potatoes, such as are usually kept for seed	25 lbs.
Potatoes of full size, handsome, well grown, better than the average seen in the market	311 lbs.
Total	375 lbs.

Being 6¼ bushels, and at the rate of 226⅔ bushels to the acre—60 pounds to the bushel. I observed that all the old seed that I found was still fresh and hard, and in some cases, could hardly be distinguished from the new potatoes.

There has been but little of the potato rot in this neighborhood.—a few rotten ones are found in almost every field—in this patch one, and one only, was found, and that a Dover. The kinds that did best were Dovers and Long Reds. Ten potatoes taken without particular selection, from among the largest, weighed 7¾ pounds, or ¾ pounds each.

Such is the result of *my* experiment. If you think it of any value it is at your service.

Very respectfully, ROBERT RHODES.

Fairmount, Pawtuxet, R. I., October, 1857.

For the New England Farmer.

HARVESTING CORN.

MR. EDITOR:—As I wandered along the banks of the charming Merrimack, which, say what you please of them, are as beautiful, and worthy to be *puffed* in story or in song as those of the more celebrated Rhine, I saw the sturdy farmers gathering in their corn. What struck me as peculiar, they had their carts standing in the field, and their baskets in hand, and were stripping the husks from the ears as they stood upon the hills. I learned from one of the proprietors of these fields, that his men would thus gather fifty bushels of ears each, daily, thus clearing an acre of full grown corn in a day by the labor of three men and a yoke of oxen How much longer it takes to gather the butts, the husks, and the stalks, and what is their comparative value when then gathered, I am not advised, but guess, as every Yankee is entitled to, that if you would have the corn fodder in most valuable condition, you will cut it even with the ground, and stand it up in the field, until the corn is so well seasoned and cured, that it may with safety be taken to the barn, and there husked at convenient opportunity.

MASSACHUSETTS STATE SHOW.

Very soon after the close of the Revolutionary war, when the excitement of that contest had subsided, and cannons and muskets had given place to plows and reaping hooks, the attention of our people was very naturally given to the means of supplying exhausted granaries, of finding the true way of employing those returned from the war, of building up the rural homes of the State, and furnishing their families the means of a comfortable and independent support. They turned to the soil, hard and rough, it is true, but the primitive, sure and permanent source of supply, and of ultimate riches and grandeur. Washington had already set a noble example in the cultivation of the soil, and quite likely, even amid the strife and horrors of war, had imbued many minds with the principles of the art, and awakened a desire in many to retire to the quiet of country life, and repose, during their remaining days, amid the interesting scenes of nature, that had never been disturbed by encampments or any of war's alarms. Thousands returned from the arts of war, to the arts of peace, and soon the public journals and fireside themes, talked of plowing and sowing, of grain and hay fields and bountiful harvests and bursting barns, instead of devastated crops, slaughtered men and homeless families.—This good spirit of the few pervaded all, and soon suggested some systematic and organic modes of proceeding.

We do not find that men of learning and ability had given special attention to agricultural matters, in their scientific relations, and had written upon them, until about the year 1800. But considerable thought must have been previously bestowed upon them, for as early as the year 1792, "*The Massachusetts Society for Promoting Agriculture*" was incorporated. This Society, during its growth, held annual exhibitions at Brighton, and was the means of carrying out the intentions of its founders in a very considerable degree. These exhibitions were continued until societies had been established in most or all the counties of the State, when it was supposed there was no further necessity for them, and they were discontinued. But the interest and fostering care of the old Society did not cease,—for wherever, in any part of the State, an opening presented itself for "promoting agriculture," the genial influences and pecuniary aid of that time-honored association have been felt. In this spirit, it contributed the sum of $2,000 to aid the *First Exhibition of the Massachusetts State Board of Agriculture*, of whose recent Exhibition these preliminary remarks seem to be necessary.

There is one agricultural society in each county in the State, and in some of the counties two or three. These societies, as well as the Massachusetts Society, each receive the annual bounty of $600, from the public treasury; they are generally conducted with prudence in their administrative concerns, and economy in their finances, but do not seem to have answered all the purposes desired. They are local, and isolated, working well and perhaps accomplishing all that was expected of them in their own limits. But the people desired a broader field of action. They wished to meet their brethren at a common centre from all parts of the Commonwealth, and find presented there, side by side, the products of the garden, the field, the stall and the family, and keep bright that chain of friendship that had so indissolubly bound them together in the dreadful struggle of the war through which they or their fathers had just passed. About a year ago this feeling became so strong, as to manifest itself in a public meeting held at the State House in Boston. It was evident there that a *State Exhibition* was desired, and the Board of Agriculture promptly proposed to co-operate with the old Massachusetts Society in supplying this want of the people, and the exhibition now just closed is the result of their harmonious action.

The Fair was opened on the morning of Tuesday, Oct. 20th, with a large collection of animals, fruits and agricultural implements and machines, but with comparatively few men and women to see them, on account of the sudden change from soft, sunny and delightful October days, to those worthy of the chill and clouds of November. There was room for pleasant anticipations, however, and those that were present were good natured and social, and determined to turn the affair to good account, if it were possible. It was this spirit that prompted the

OPENING ADDRESS BY PRESIDENT WILDER.

In commencing, he congratulated the guests present upon the auspicious change in the weather, and the prospects before them for a glorious inauguration of the Fair. He said that from the great number of entries of the various classes, he believed that they could anticipate a fair that in magnitude and its results, would be well worthy of the noble old Bay State, and that while he sympathizes with the public in their great commercial troubles, and the gloomy prospects of trade, he still looked upon agriculture as the real back-bone of the country, and said that so long as Heaven vouchsafed to us prolific harvests, and Massachusetts farmers could make such a display of implements, animals and farm products, as are seen here, the prosperity of the country was sure; that although stocks might fail and banks break, yet we can look confidently to the great agricultural resources of our country as a sure means of restoring to all the industrial pursuits that happiness and prosperity which has characterized our country for so many years.

He then pronounced the exhibition duly open, and said it would remain so for the four succeeding days.

In continuing our account, little attention will

be given to the order of arrangement or of proceeding,—our object being to catch as much of the spirit of the occasion as possible, and impart it to the reader, and at the same time make a concise record of material points for future reference.

The Grounds were the same as those occupied for the Show of the U. S. Agricultural Society two years ago, and were commodious and convenient. Tents were erected in the centre, for the accommodation of various departments, and places for procuring sundry edibles for the hungry, and for retirement and rest. The sheds for cattle and horses had been repaired and put in proper order, water and forage abundantly supplied, the track level and clean, and every thing made as inviting and comfortable for all as possible. Our national flags floated proudly in the breeze over several of the tents, while national airs from an excellent band fell harmoniously upon the ear with the nervous steps of the horses upon the adjacent track. The arrangements of the Board were made with wisdom and carried out with fidelity, and nothing was wanted to ensure a successful result but that all the State—with as many of "the rest of mankind" as could make it convenient, should come and see and judge for themselves.

Yale's great tent, covering more ground than we dare to state, occupied nearly the centre of the grounds, and to this we made our way, attracted by sundry words in glowing colors, intimating that within we might find the objects of our search. Upon entering it we first met a collection of vegetables, such as barrels of various kinds of potatoes, squashes, vieing the gold in color, and others swelling to ox-like dimensions in size, cabbages, turnips and beets, of various shapes and hues, and whatever might be expected in this department, was there. The collection presented by Mr. J. F. C. HYDE, of Newton Centre, embracing the leading vegetables of the garden, attracted much attention. It contained a great variety of potatoes, upon which he has been experimenting for several years, in order to ascertain what kinds are best adapted to our soils and most suitable for the table. Near this excellent collection of vegetables, Mr. H. had placed several bottles and jars of syrup which he had extracted from the Chinese Sugar Cane; he had also several rolls of paper which he had caused to be manufactured from the cane after the juice had been extracted. The paper had considerable strength, was light colored and free from the disagreeable odors which paper has that is manufactured from oakum and junk.

Mr. LAKE, of Topsfield, also presented several specimens of the syrup, some of which were as good as any syrups obtained from the ordinary sources.

The only grain, we are sorry to say, that we saw on exhibition was a few ears of corn and some samples of rye.

The show of fruits was limited, but of high character—the apples and pears were very fine, and the grapes, peaches and plums such as it would be difficult to equal. The show of the *Concord Grape* was such, we believe, as to put to rest all doubt and cavil of its worth; it bore off the palm of the first prize on native grapes, and the wine made from it did the same. We never before saw so large and fine specimens of the Seckel pear as were upon these tables. Mr. LAKE, of Topsfield, presented a winter sweet apple of large size and great beauty, which he says promises to be one of the best winter apples we have. It is to be hoped this will prove true, for there is still, even in Massachusetts, a place yet unsupplied with this delicious winter fruit. A good sweet apple is not a matter of fancy, a fruit to please the palate merely—but is one of the staples, like corn or wheat, and affords such abundant nourishment, and is at the same time so wholesome, that it ought to become a common article of food for the million. We hope Mr. Lake will succeed in introducing this apple extensively among the farmers, if it proves to be all he expects of it. It was found eight years ago on the estate of Gov. Bradstreet, in Topsfield, and has since been engrafted on Baldwin stocks.

Advancing a little farther into this tent we came to collections of agricultural implements presented by Messrs. *Nourse, Mason & Co.*,—*Parker, White & Gannett*,—*Blake, Barnard & Co.*,—and *Nourse & Co.*, all of Boston. There were also many miscellaneous articles presented by other persons, possessing various degrees of ingenuity and skill. The show in this Department was well calculated to excite the wonder and admiration of the beholder, and has never been equalled in New England, if it has anywhere in our country. In the collection of Nourse, Mason & Co., *seventy plows* stood side by side, no two being alike, and affording among them a plow for every conceivable want which the farmer may feel in turning up his soils to receive their crops. The style of these implements was graceful and compact, united with lightness and strength. They were finished in every part, both wood and iron work, with a care and neatness which reflects credit upon those who designed, as well as those who executed the work. There was also the *Horse Hoe*, an implement combining the properties of the plow and the hoe, designed by Mr. KNOX, of Worcester, and the *Gang Cultivator*, by the same gentleman, both of which have been tested by some of the best farmers among us, and pronounced great acquisitions to our labor-saving implements for the farm. Mr. Knox, standing upon the vantage ground gained by Mr. JOEL NOURSE, in the construction of the plow, has gained considerable celebrity in devising new, and improving old implements, used in breaking the soil and preparing it for seed. All the implements now manufactured by this House, fo.

this purpose, have been so thoroughly proved, and their merits so well established, that they have even broken through the walls of English prejudice, and are now ordered to the estates of the noblemen in the mother country. The gang cultivator is a series of small plows, standing behind and a little to the right of each other, and is an implement which we have found to supply a want which no other would. In the collection of Nourse, Mason & Co., we also saw the *Universal Plow*, devised by Mr. HOLBROOK, of Brattleboro', Vt.; it has but one beam and *twelve* mould-boards, calculated to suit all soils and places. This plow contains a combination of happy thoughts, and we think will be generally adopted. Some further experiments are about to be made with it, the results of which we shall lay before the reader.

In the collection of Messrs. *Blake, Barnard & Co.*, were plows of various construction and excellence of finish, and among them one for ridging which seemed well calculated for use in root crops, where a ridge is wanted upon either side. There was also an implement, constructed after the manner of the horse hoe, but containing three small plows, one in front and one at the right and left, behind, which struck us as well adapted to work among our potato and corn crops. Here also we saw DODGE'S *Suction and Force Pump*, combining both the suction and force principles. This pump would throw the water through a hose some fifty or sixty feet, with the application of very trifling power. It also possesses some advantages with regard to freezing in the winter.

The collection of Messrs. *Nourse & Co.* was made up of the choicest articles, and arranged with that nice discrimination and skill which is sure to attract attention. In the group we found nothing of a mediocre character; there was evidence everywhere that they knew their business well. The first article we noticed was a new *fan mill*, JOHNSON'S, made of chestnut; simple in its construction, and effective in its results; there were others about it, and it may be of equal merit, but this suited more nearly our idea of a good fan mill. The *Eagle Corn Stalk Cutter* stood by, and we understand has been widely extended since we spoke of it some year or two since. It carries its own certificate, and will not disappoint those who use it. Then there was a *Horse Corn Planter*, Billings' patent, with which we, every year, plant *an acre an hour*, and plant it well. Every neighborhood, at least, should have one, for it will answer the wants of several farms. In this collection there were, also, hay and straw cutters, corn shellers, scythes and snaths, grain-cradles, churns, a portable saw-mill, plows, thresher and separator, and many articles of great merit.

In the collection of *Parker, White & Gannett*, Boston, we were especially pleased in looking at a *Thresher, Separator* and *Cleaner*, Whitman's patent, which seemed to combine everything that can be thought of in the way of threshing and cleaning grain. Where grain is raised in large quantities it must be an invaluable article. Here, also, was the *Fyler Churn*, pronounced by two or three gentlemen standing by, who had used it, as the best churn yet constructed. The *Self-Sharpening Hay-Cutter* was tested, and thought to be a machine to do rapid and excellent execution. Here were also, vegetable cutters, double and single horse-powers, churns, axes, corn and cob crushers, garden-rollers, and a great variety of other important implements, for the farm.

Besides the articles we have particularly mentioned, there was an indefinite number, for all manner of purposes, but not one among the whole but was intended to facilitate labor — many of them to perform the labor better than it could be done by the hands, and in all cases to save human muscles from an otherwise inevitable toil, or else deprive us of many things which have come to be considered as articles of necessity. We cannot enumerate, but there was every conceivable thing from an apple-pearer of a span's breadth, to a huge machine like that for pressing hay.

Among the minor articles which shone like gems, and were gems, in all the large collections, were the shovels and spades of OLIVER AMES, of Easton, and the forks, potato-diggers, &c., of HENRY PARTRIDGE & SON, of Medfield. Their finish is almost equal to watch-work, while their temper would vie with a Damascus blade. They have already saved to the world more human toil than has been averted by the wisdom of the most distinguished statesman that ever lived! In all our rural homes the names of AMES and PARTRIDGE are familiar household words. We cannot now stop to enter into a mathematical calculation of the saving in a year, between the use of one of their bright, light, symmetrical and convenient shovels or forks, over one of the wooden or shod shovels, or primitive forks, such as were exhibited on the westerly side of the great tent at the late show. That they have been the means of averting consumptions, lumbagos, rheumatisms and other dire diseases, in thousands of instances, we have no doubt whatever. We look upon these men as public benefactors, as much as Cobden, or Buel, or Colman.

There were hoes, too, and field and garden rakes, trowels, weeders, scufflers, border-knives, hay-knives, pitch-forks, pruning tools, saws and other articles which the farmer and gardener must have if he means to prosecute his labors with profit and success. There were all of the most convenient construction and admirable finish.

Just before the exhibition closed a new implement was introduced in the shape of a *Potato Planter*. It is to be operated by horses, and is con-

structed upon the plan of the Billing's Corn Planter. It will cut and drop any quantity desired for hill, or at any distance required. A fertilizer may also be dropt with the potatoes, and the machine may be slightly altered and used for planting corn. Indeed, the whole show of implements was of great merit, and if there had not been an animal of any kind on the ground, or any fruit upon the tables, this grand display of *Agricultural Implements* would have been to the *First Exhibition of the State Board of Agriculture* a success!

The number of horses entered was 388; cattle, 300; sheep, 200; swine, 200; poultry, 100; agricultural products, 23, including 350 varieties; fruits, 57, including about 500 varieties; farming implements, 120; dairy, 30; miscellaneous department, A, 40; do. B, 2. Several horses known all over the Union as among the very best that were ever raised in the country were on the grounds. Among them were "Pocahontas," "Trotting Childers," "Rip Van Winkle," "Young Morrill, Jr.," "Osceola," and others of nearly equal celebrity.

The number of cattle in the pens by actual count Tuesday afternoon was as follows:

Durhams	26
Devons	50
Jerseys	30
Ayrshires	12
Herefords	11
Milch Cows	22
Grade Cows	95
Fat Cattle	8
Working Oxen, 23 pairs	46
Calves	25
Total	325

We can do little more now than to mention such of them as seemed to us particularly excellent. Our attention on a committee which was overburdened with duties, occupied us more than three days, and deprived us of those critical examinations which it would have given us pleasure to make.

The collection of Durham, or Short Horn stock, was not large. P. Lathrop, of South Hadley, presented his fine bull, 3 cows, 2 heifers and 1 calf, all pure blood. W. Robinson, of Barre, a bull, and L. F. Buffum, of Winchester, N. H., 3 heifers.—Col. Moseley, of Westfield, had his 4 years old bull, Nonesuch, and W. G. Wood, of Dedham, presented two 3 years old heifers, twins, and nearly white, which, whether pure or not, we should select to take upon our farm. S. A. Hayward, of Littleton, had his 4 years old bull, Romeo, in the number.

There was a small collection of *Herefords*, and in it the stock belonging to the State Farm, consisting of 4 Hereford cows, a heifer, bull and calf; also, 4 Devons, 3 Jerseys and 1 grade cow.

Col. S. Jaques, of the Ten Hills farm, had his *Cream Pot* stock represented by a noble cow, one heifer and a bull calf.

The *Devon* stock was more numerous. William Buckminster, of Framingham, Harvey Dodge, of Sutton and John Brooks, of Princeton, each had collections. Mr. Buckminster's herd appeared finely; he has taken great pains in rearing this stock, and we hope will reap a rich reward for his labor. Advanced as he is in years, he was on the grounds as active and buoyant as any there. Mr. Dodge had 13 calves in a pen making a fine show. H. M. Sessions, of South Wilbraham, had a fine 3 years old bull in this class.

The *Ayrshire* blood was pretty well represented in the stock of Col. Newell, of West Newbury, A. S. Lewis, of Framingham, Leonard Hoar, of Lincoln and W. G. Lewis, of Framingham.

The *Jersey* or *Alderney* stock was very fine—we have never seen a larger or better collection.—Among the exhibitors were William Spencer, of Lowell, H. H. Hunnewell, of West Needham, A. D. Weld, of Roxbury. The latter had a bull 3 years and 10 months old, which was very fine. Mr. Hunnewell's cow was a beauty, and his 18 months bull, in our judgment, the best on the ground.—We speak, however, without any knowledge of pedigree, or any handling of the animal; but from our cursory examination, we should have no hesitation about where to make the award.

The *Grade* stock contained many fine animals. John Brooks, Sen. and Jun., T. J. Field, of Northfield, with his Valley Maid yearling, William Eames, of Worcester, Devon and native, William Robinson, Barre, Durham and native, Dexter Washburn, Natick, a fine 18 months heifer, S. Ellsworth, Barre, Cream Pot, Harvey Dodge, of Sutton, and A. G. Sheldon, of Wilmington, each presented animals of superior worth.

The *Fat Cattle* were not very numerous, but numbered among them some of great size. H. Taylor, of Plympton, had an 8 years old ox weighing 3,465 pounds! and Nathan Brooks, of Acton, presented a fine pair.

In the class, *Working Oxen*, there were some noble specimens—the pair belonging to John B. Moore, of Concord, were a credit to the owner and to the State. There were entries in this class from various portions of the State, and it is questionable whether a finer display could be made in any New England State than this was; but we must not plume ourselves too much on the excellencies of this kind of stock, because the probability is that most of it was reared by other hands, and obtained many of their good points before they came into the possession of our people.

Among the *Sheep*, there were the Silesian, French and Spanish Merinoes. Messrs. Campbell, of Westminster, Vt., Buffum, of Winchester, N. H. and T. J. Field, of Northfield, Mass., were the principal exhibitors, and bore off the prizes.

The *Swine* were quite numerous, and as a general collection, were very good. J. P. Stickney, of Boston, had fine groups o Suffolk, A. G. Sheldon,

of Wilmington, Natives, A. S. Lewis, Framingham, 6 pigs, Suffolk and Mackay, C. R. Damon, Cochituate, a boar 2 years old, weighing 500 pounds, and Leonard Hoar, Lincoln, Suffolk and Middlesex, all of which were excellent.

In the evening of the third day of the exhibition, there was a gathering of the people at the State House, where a general agricultural discussion took place, embracing several topics. The first was upon the *Chinese Sugar Cane;* Mr. Hyde, of Newton, and Mr. Lake, of Topsfield, Mass., each related their mode of culture, of expressing the juice and of obtaining syrup. They stated, as their opinion, that the cane can be profitably cultivated among us; that good syrup may be obtained at a cost, Mr. Lake thought, not exceeding nineteen cents a gallon; Mr. Hyde placed it a little higher. Judge French, of N. H., who had just returned from a visit to England, being called upon, spoke of the reciprocal advantages which may be derived by giving our attention to some of the English practices in husbandry, and contrasted our skill in plowing with that of their plowmen, and their huge and cumbersome implements with our light, and graceful, but sufficiently strong ones, used for the same purpose. Other gentlemen continued the discussion until past ten o'clock. Col. Moses Newell, of West Newbury, presided, pleasing all by his impartiality, his genial manner and applicable remarks.

We should be glad to indulge in a general summing up of this rare occurrence, if we had not already transcended our usual limits. The whole occasion has such an intimate and important application to the interests of our people, that we shall fail to do it justice, even in these lengthened remarks. For instance, what would induce us to relinquish the *Fan Mill*, stand in the sharp current to winnow, catch rheumatisms and catarrhs, and lose a fourth of the value of the product in time and waste grain? What would compensate us if the *Mower* and *Reaper* were withdrawn from our fields, even in their imperfect state, and we were compelled to depend entirely upon the hand scythe? So with the apple parer, the hand corn mill, the drill barrow, and wheel hoe. Seeing this vast collection of articles has multiplied the wants of the farmer; that is, he did not before know, how many easy modes there are of averting *toil*, and at the same time of securing good results. He saw before him at the Fair, Crafts' *Draining Tile*, inquired into their uses, learned the construction of drains, how they improve the soil and lengthen the season, and determines to make early experiments of them. So of many things. We are glad there has been a State Show, and hope there may be one every year. The unanimous opinion, as far as we have heard any expressions of it, is, that the Fair should become an institution.

For the New England Farmer.

A GOOD POTATO CROP.

FRIEND BROWN:—An ounce of fact is worth a pound of theory, in farming matters as well as other things. Below, I propose giving you the Dr. and Cr. account of a field containing three-fourths of an acre, for the year 1854—the season of the severe drought. I have charged ten cents an hour for the labor of a man or horse, and $1 per load for one-half of the manure; the remaing half being for the benefit of future crops. No charge is made for harvesting the crop, and no credit given for any planting size or small potatoes, as I estimated that they would balance each other.

FIELD NO. 1.	Cr.
45 bu. potatoes sold in Boston market, 20 miles distant.	$53.62
15 bu. potatoes sold in Lexington	18.00
23¾ bu. potatoes sold in town	26.65
60 bu. potatoes put in cellar, worth 80 cents	48.00
Total	$146 27

FIELD NO. 1.	Dr.
Plowing, spreading on manure, &c	$3.70
One-half the value of 30 loads of manure	15.00
6½ bushels seed potatoes	6.50
Planting, &c	1.50
Plaster and guano	85
Hoeing three times	4.35
Marketing 45 bushels of potatoes, at 20 cents	9.00
Marketing 15 bushels at Lexington, at 16 cents	2.40
Total	$43.30
Net gain	$102.97

The above is a large profit, much larger than it is usual to obtain, but I think it clearly shows that potatoes under some circumstances may be grown with success. It also demonstrates, in my opinion, the advantage of keeping a correct account with each of the crops we raise. In this way every one may determine what crops pay the largest profit, and all may judge very nearly whether they are going up hill or down. J. B. B.

Concord, Oct. 5, 1857.

For the New England Farmer.

GATHERING AND PRESERVING WINTER FRUIT.

MR. EDITOR:—I have noticed a striking difference in different barrels of our winter fruit, on opening them in the spring of the year. One barrel will be very much rotted, and another almost perfectly free from rot. I have observed the same difference in those barrels which had been gathered from the ground, and the fruit more or less bruised. In one barrel every bruise would seem to dry up and scar over, and the apple remain sound, while in another every bruise would turn into a soft rot and extend to the whole apple. Now why this difference? There must be some cause for it. That cause I wish to learn, and perhaps the question is already settled in the minds of some of your contributors to the columns of the *Farmer*. If it is not, I hope attention will be turned to it. I am aware that some would hastily reply, the difference is owing to the dryness or moistness of the apples when barreled up, or to the weather at the time, or immediately succeeding the picking and barreling. Others, still, attribute the difference to the tightness or openness of the barrel; the one retaining all the moisture which arises from the sweating of the fruit, the other gives free ven-

tilation. My own experience favors free ventilation. Formerly, my custom was to head up tight, in the best barrels I could get,—but for the last few years I have made a three-fourths inch hole in both heads of the barrel and piled up out doors till quite late. I pile on the bilge and cover the surface to protect from storm and sun. It will be readily seen, that, with barrels thus prepared and thus piled up, whether out door or in the cellar, there is a constant circulation through the barrel, carrying off the moisture which arises from sweating, so that there is at no time any accumulation.

In 1855, I gathered about 600 barrels, and managed the whole as above. There was much complaint that year about apples decaying badly. Mine kept well; I thought, better than in former years. Still, there was the difference alluded to in the beginning of this article. The bruises, more or less slight would in one barrel dry up, while in another they would become soft rot.

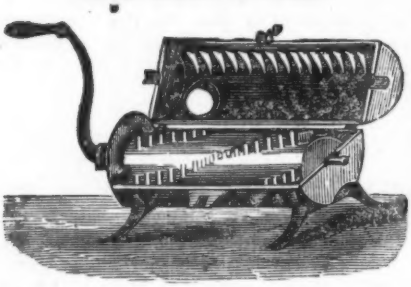
I am no believer in lunar influences on pork, beef or cabbage, but I have been led to pen the above from a remark made in my presence, some year or more ago, viz.:—that a bruise made upon an apple at a certain time in the moon would dry up and not rot. The remark was second or third hand, and my informant could not tell what time in the moon it was best to gather apples.

Whatever may be the cause of one apple, or one barrel of apples, bruised or not bruised, keeping better than another, the subject is worth attention.

N. F. Emerson.

Chester, N. H., Sept. 18, 1857.

IRON MEAT CUTTER.



We have often spoken of the importance of providing labor-saving implements for the kitchen and wash-room, as well as for the field and barn. The duties of women on the farm are quite as arduous as those of men; indeed, they are more constant, and unless assisted and lightened, the mother will scarcely be able to devote that time and care to the instruction of children, which no tutor or teacher can with propriety assume. Household work may be materially assisted by a plentiful supply of dry wood and of soft water, always near at hand, and by the use of many little machines costing but little, such as apple-parers, washing machines, good churns and cheese-presses, and especially the one which stands at the head of these remarks.

This little labor-saving machine commends itself to every family by its simplicity of construction, and by the fact that it is made entirely of iron, and may be easily kept sweet and clean.

Directions for using it.—Fasten the machine firmly on a level table or bench, by screws through the feet. Cut the meat into pieces the size of an egg, free from bone, and feed it in the hopper, at the same time turning the crank as fast as it will clear. If the meat comes through too coarse, set the slide so as to partly cover the opening when the meat is discharged, and feed slower. If the meat is frozen, or cold and stiff, it may be made pliable by dipping it in warm water. This machine will cut one hundred pounds of meat per hour.

POSITION IN READING.

It is best for light to fall on the page from behind, a little to one side, the person sitting in an erect position.

All persons under parental control, should be forbidden to read by artificial light, except occasionally, for half an hour at a time. This injunction would need no repetition, if parents could only know, as physicians do, in how many cases the sight is prematurely impaired, or actual disease of the eye is engendered, which, after heavy expense, and weeks and months of starvation and dreary confinement in darkened rooms, is found to be intractable.

It ought to be known that reading by gas light is very much more injurious to the eyes than candle-light, from the flicker caused by the unsteady jet of gas from its fountain, and also from the particular tinge of gas light. A candle also flickers some; this is remedied by having two candles burning at the same time; they should be rather behind the person; the eyes should never be allowed to face artificial light in reading.

The habit of reading by artificial light in bed is so reprehensible, if for no other reason than that of periling the lives of others by burning the house up, as has been the case in multitudes of instances, that it is not worth while to address any argument to those who practice it—whose absorbing, predominant characteristics are recklessness and selfishness.

Many read in the day-time, while reclining on a sofa, or in bed. This occasions an unnatural strain of the sight, which may very well induce organic disease by a persistence in the abnormal tension. Our countryman, Crawford, is believed by persons most familiar with his habits, to have brought on the malady which affects his eyes at the present time, by the constant habit of reading in the position referred to. In seeking relief, he has made repeated journeys between Paris and Rome, then to London, where, the eye beginning to protrude frightfully on the cheek, by a supposed cancerous formation from behind, had been entirely removed. Only think of it!—to have an eye cut clean out of the head, in the hope of saving life. Even then it seems in vain, as he is on the point of going home to place himself under the care of some person here, who is reputed to be successful in cancerous cases.—*Hall's Journal of Health.*

A Splendid Orchard.—The last spring, we spoke of the new orchard planted by John McMur-

rie, Esq., on the San Lorenzo creek, consisting of 3200 apple trees. We paid a visit to this orchard, this week, and found it much improved; trees healthy, increased in size, and handsomely formed, and, what was most gratifying, the addition to the orchard of 12,400 trees more, making now the number of *sixteen thousand apple trees* in one orchard. Who can beat this, East or West? The trees are planted 16½ feet apart, in the quincunx order. Sixteen hundred are now two years planted; twelve thousand four hundred, one year.—Some are in bearing now, and many give promise of producing largely, another year.—*Cal. Far.*

ANTS—THEIR SENSES AND HABITS.

"Go to the ant, thou sluggard," is advice not only against sluggishness, but is applicable to other things, particularly as it relates to what may be accomplished by the combination of individuals under great disadvantages.

The only medium which ants possess for acquiring and imparting information appears to be their antennæ, or feelers, having neither of the two most useful senses for learning which larger animals possess—seeing nor hearing—and if they have the sense of smelling it is very limited. I have placed sugar within half an inch of their trail to a sugar barrel, and they would pass without noticing it until one of them accidentally strayed within touch of it, when others would soon follow by feeling their way. I have placed a thin strip of wood not wider than the length of an ant, across their trail, and it embarrassed them; they would turn towards each end of it and return, until some bold fellow ventured across it, when the rest followed. I caught a number of them on a chip with sugar on it, placed near their trail, and gently removed it to the opposite side, about a foot off; when they finished their repast they went feeling around in every direction, and often returned even when they had got within two inches of the great thoroughfare where the multitude was passing; they neither saw nor heard them; but as soon as they struck the trail they took the homeward course, and ceased to return.

The above experiments were made with the small red ants. When they first discovered the sugar those returning from it would extend their antennæ to those they met, make one or two short jumps, and the latter would quicken their pace, as if satisfied with the information.

Whenever ants discover the trail of another tribe in rather suspicious proximity to their own dwellings, if they are of equal size with themselves, they sally out in a body to attack them; but if they are a size or two smaller—the very small ones they never notice—one or two guards take possession of the trail, and cross and recross it with the most unwearied diligence for hours and days together, and wo to all they catch. But scores will pass within one or two inches of a guard without either being aware of the others' presence.

Notwithstanding the want of these senses a community of large ants will explore an area of ten to fifteen acres, and if one of them makes a discovery of food, intelligence of it will be circulated so rapidly that they will form a trail to it in one night, though it be one hundred and fifty yards off.—Their sense of feeling is extremely delicate, for by it they can spread an alarm, distinguish a friend from a foe, follow a trail over a smooth floor, and convey any intelligence which may be necessary for them to know. In their wars they are very destructive, and this appears to be a provision of nature to prevent their increase. Two ants of about equal size will fight to the death without yielding. In a regular battle between two tribes, it is their custom to carry off the dead and wounded from the field.—*Scientific American.*

A GOOD COW.

A friend sends us a statement of the product of a cow owned by Gen. Robert Davis, of Concord, N. H., which is remarkably good. She calved April 9, and on the 18th, the calf was sold for $5. They then made butter from her milk, as follows:

Week ending—

April 26	8 lbs.	June 21	11½ lbs.
May 3	9 "	June 28	11½ "
May 17	10 "	July 5	9 "
May 24	10 "	July 12	9½ "
May 31	11 "	July 19	8½ "
June 7	11½ "	July 26	8½ "
June 14	11½ "	Aug. 2	8½ "

The cow is a native, 6 years old, bright red, and of medium size; udder, yellow; feed, ordinary grass, three cows on four acres of land. Extra feed occasionally, such as cob meal, Indian meal or oats; not exceeding one quart per day. During the time this butter was made, new milk was used for bread, and cream for coffee and tea twice a day, in a family of four persons, and during the last of July a large portion of the milk was used. Considering her size, the owner thinks he can challenge a comparison with any *blood cow.*

MYSTERIES OF A JUNK OF COAL.

For years no one supposed that a piece of soft coal, dug from its mine or bed in the earth, possessed any other quality than being combustible, or was valuable for any other purpose than as a fuel. It was next found that it would afford a gas which is also combustible. Chemical analysis proved it to be made of hydrogen. In process of time mechanical and chemical ingenuity devised a mode of manufacturing this gas and applying it to the lighting of buildings and cities on a large scale. In doing this, other products of distillation were developed, until step by step the following ingredients or materials are extracted from it:

1. An excellent oil to supply light-houses, equal to the best sperm oil, and at a lower cost.

2. *Benzole.* A light sort of etherial fluid which evaporates easily, and combining with vapor or moist air, is used for the purpose of portable gas lamps so called.

3. *Naptha.* A heavy fluid, useful to dissolve Gutta Percha, India Rubber, etc.

4. An oil excellent for lubricating purposes.

5. *Asphaltum,* which is a black solid substance, useful in making varnishes, covering roofs, and covering over vaults.

6. *Parrafine.* This is a white crystaline substance resembling white wax, and which can be

made into beautiful wax candles. It melts at a temperature of 110 degress, and affords an excellent light.

All of these substances we learn by the *Plough, Loom and Anvil*, are now made from the soft coal found in Kentucky, and manufactured by the Breckinridge coal company at Cloversport, in that State. They have twelve retors in operation day and night, consuming eight or ten tons of coal every twenty-four hours.

One can hardly realize, as he takes a lump of heavy smutty coal in his hand, that he holds concentrated therein all these different ingredients chained within, and which a little heat properly applied, will liberate and present in their separate forms, ready for the several purposes to which they are adapted.—*Maine Farmer.*

For the New England Farmer.

INFLUENCES OF FARMING.

A few weeks since, I contributed an article on the above subject. I did not suppose, appealing as I did to reason and practical experience, that a single farmer would controvert my statements. And there has not; but an article from E. H. S., of North Wayland, lately appeared, by which he attempts to prove them fallacious, and farming a loathsome employment. I have intimated that I thought him not a farmer. If he is one, he must be a pitiable object; and his farm everywhere bear the marks of neglect and ill-directed toil, where the "horse and patient ox" would be the more willing, if not the more interested laborers. I propose to offer a few remarks on his article, not appealing to the "fancy," nor indulging in lamentations.

He says it is one thing to gaze upon an edifice in admiration, another to erect it. Allowed. But who gazes upon it with *so much* admiration and pleasure as its builders? They feel, as they survey it in all its beauty and grandeur, that it is an offspring of their mechanical genius. And they are justly proud; but the casual observer experiences no pleasure only as it approaches his idea of beauty, and elegance; and it awakens no deeper emotions than would a beautiful landscape. Again, the farmer in his labor-field is away from bustling cares. His soul, unfettered, can appreciate, as well as others, all the varied beauties of nature. How the curse can particularly affect farming, is more than I can see. God, in pronouncing it, would not be likely to expatiate on its beauties, any more than would a judge in passing sentence of death upon a criminal. And as all mankind, directly or indirectly, receive their subsistence from the ground, the curse of that would effect all. And friend E. H. S. will not escape his portion in leaving farming. He is in an error, also, as to farming being dependent on physical strength, for those who introduce the most mental labor into their arrangements, are the most successful. As to mechanics, but very few are fortunate enough to be the authors of "wonderful inventions." The majority of them must labor day by day for their livelihood; and as a class will not compare in wealth with farmers. Our opinions of a class should be based, not on exceptions, but generalities.

Again, he limits the farmer's health and length of days to *certain* circumstances. The tables of longevity place the farming community the highest in their *present* circumstances, even. Here he states that nine-tenths of the farming community are loaded with debts, struggling to obtain a livelihood. An inventory of property will show them, as a class, to be in more comfortable circumstances than any other. I admit there are exceptions. Some, having but little money, will purchase a large farm. Others cultivate too much land, while some will be poor in any occupation. After saying this, he complains of their want of mental stimulus. I should think a man loaded with debts would have sufficient of this. If mental labor counterbalances the advantage of physical exercise, why do we not hear of an equal number giving up farming, as study, on account of ill-health. Compare a hard student with a rugged farmer, or sturdy back-woodsman, and how does his statement appear?

Again, though the farmer may occasionally lose a crop, it does not make him insolvent; his land remains, and succeeding seasons will compensate for his loss. Besides, the potato crop is not the only staple product. Such meadows as he mentions are owned but by few farmers, and those in his section should not directly attribute the blessing of their loss to the hand of Heaven, but to the owners of Billerica dams.

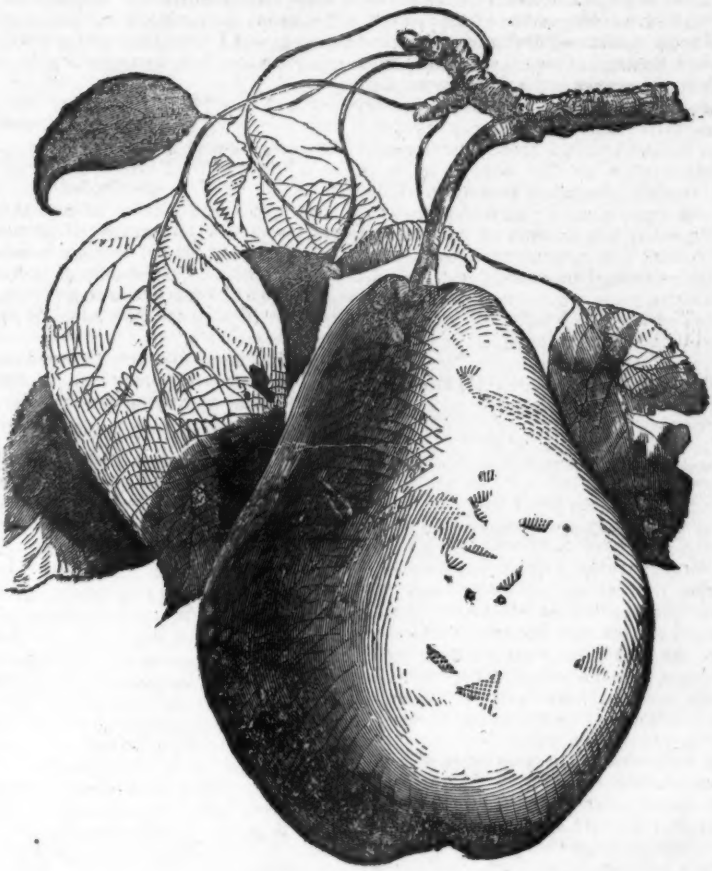
I have thus briefly, endeavored to state the reality without "gloss or poetry." There *are* arguments for farming against which sophistry will not avail. It is an occupation engaged in by the largest part of the civilized world. On that is based its social fabric. And by the innate laws of human nature, it presents itself to the unprejudiced mind as a worthy and pleasant pursuit.

Visit, ye scoffers at farming, the home of a persevering, enterprising farmer, one who devotes to it the energies of an intelligent mind; his farm, indicative of thrift and energy, is a place where the visitor would willingly linger, while the taste displayed in his dwelling, his well-assorted library, make home attractive, and pleasant. Then, tell me, if there is no happiness in farming.

October 22, 1857. L. H. SHERMAN.

TO SAVE TOOLS, &C., FROM RUSTING.—The following is an exceedingly simple, cheap and effective preparation, one available to all, which will at least save all metals from loss by rust.

Take about three pounds of lard and one pound of resin. Melt them together in a basin or kettle, and rub over all iron or steel surfaces in danger of being rusted. It can be put on with a brush or piece of cloth, and wherever it is applied it most effectually keeps air and moisture away, and of course prevents rust. When knives and forks, or other household articles, liable to become rusted or spotted, are to be laid away, rub them over with this mixture, and they will come out bright and clean even years afterwards. The coating may be so thin as not to be perceived, and it will still be effectual. Let every one keep a dish of this preparation on hand. As it does not spoil of itself, it may be kept ready mixed for months or years. *Mem.*—Fresh lard, containing no salt, should be used. Resin is a cheap article, and may be obtained almost anywhere for four to six cents per pound.—*American Agriculturist.*



THE BARTLETT PEAR.

Among the excellent fruits with which a kind Providence has blessed us, is the Pear. The tree and fruit have many qualities to recommend them; the tree, when full grown as a standard, is symmetrical, but tall, and somewhat prim, and as a dwarf is highly ornamental even in well cultivated grounds. Some varieties of the fruit are exceedingly beautiful in form and color, and the well ripened fruit is thought to be nutritious and healthful. The pear tree is of comparatively slow growth, and this fact prevents many persons from setting it; when engrafted on the quince stock, however, it soon comes into a bearing state. A good tree, such as may be purchased for seventy-five cents or a dollar, will usually produce fruit in the course of three or four years, and continues to bear annually if on rich land and kept in a proper state of cultivation. The varieties of the pear are exceedingly numerous, but a choice selection may be made from them within the number of twenty-five, which will afford the family a succession of the richest fruit.

Among them all, however, everything taken into consideration, rapidity of growth, hardiness, size, form and flavor, there is nothing which we should recommend before the *Bartlett*, as a summer pear, to those who have no trees now growing. Below we give its description from Downing's work on Fruits.

This noble pear is, justly, one of the most popular of all the summer varieties. Its size, beauty and excellence, entitle it to this estimation, apart from the fact that it bears very early, regularly and abundantly. It is an English variety, originated about 1770, in Berkshire, and was afterwards propagated by a London grower by the name of Wil-

liams. When first introduced to this country its name was lost, and having been cultivated and disseminated by Enoch Bartlett, Esq., of Dorchester, near Boston, it became so universally known as the *Bartlett* pear, that it is impossible to dispossess it now.* It suits our climate admirably, ripening better here than in England, and has the unusual property of maturing perfectly in the house, even if it picked before it is full grown. It has no competitor as a summer market fruit. The tree grows upright, with thrifty, yellowish brown shoots, and narrow, folded leaves.

Fruit of large size, irregularly pyramidal. Skin very thin and smooth, clear yellow, (with a soft blush on the sunny side, in exposed specimens,) rarely marked with faint russet. Stalk one to one and a half inches long, stout, inserted in a shallow, flat cavity. Calyx open, set in a very shallow, obscurely plaited basin. Flesh white, and exceedingly fine-grained and buttery; it is full of juice, sweet, with a highly perfumed, vinous flavor. (In damp or unfavorable soils, it is sometimes slightly acid.) Ripens from the last of August to the middle and last of September.

* The first imported tree in Mr. Bartlett's grounds, was sent from England in 1799.

THE WASTE OF MANURES.

MESSRS. EDITORS:—In my first communication to your paper on this subject, I considered the waste arising from the barbers' shop only. I will now direct the attention of your readers to the consideration of the still greater waste arising from the wasted scraps from the boot, shoe, harness, whip and portmonie factories. I have no means of knowing the whole amount of waste arising from the above sources, but the true value of such elements as fertilizers, I know well both from chemical analysis and from practical experiments. Yesterday I stepped into a harness shop and inquired of the head man what he did with scraps. Said he, I burn them up in winter, and throw them out in summer, as you see here before my shop. But do you know their value as a fertilizer? Yes, said he, I know it well, for I am an Englishman, from the county of Sussex, England, where all the farms are under better cultivation than the best gardens in this country. There I sold all the scraps I could save, for four cents a pound; but here I should have to hire the farmer to draw them away from me. But I have made up my mind, said he, that farming in this country is all a sham, any way. They don't know the first thing about it. I was told by a shoe-factor in Connecticut, about two years ago, that he burned up at least three tons of scraps a year, worth to him not more than one-fourth of a cent a pound, and perhaps not half of that. On the average, not more than nine or ten hands were employed in the shop to which I refer.

What an immense waste there must be in the New England States, and especially in Massachusetts and Connecticut. It is a singular fact, too, that all the farms, all around the factories referred to, have the greatest need of these wasted elements. Yet they will burn up and throw to waste thousands of tons annually, of the very elements they are now importing, under the name of guano, at an expense at least ten times greater. Among these elements of waste, I include all the old boots, shoes, harness and other scraps, wasted annually from every farm-house in the land. The time, I trust, is not distant when factories will be started in every section where the elements of waste are sufficient to warrant it, for the manufacture of the wasted hair and leather into a fertilizer equal in value to De Burg's best, at least.—*Country Gent.*

For the New England Farmer.

THE THINGS I RAISE—No. 3.

MARROW SQUASH.

This squash is a well-known sort, though I am sorry to say that the pure Boston Marrow is seldom to be found. This year has been a fine one for the growth of squashes, though they are not of so good quality for eating as in a dry season. The marrow is perhaps the best squash grown for early use, being fit for table early in summer. Should recommend it—if recommendation it needs—even though it is not the genuine article. Size has been obtained at the expense of quality.

BRAZIL SUGAR SQUASH.

Grows very much like a pumpkin, with the peculiarity of always setting its fruit in pairs. Medium size, long and smooth, like a watermelon; in quality sweet; light colored. Should not name it as a sort worthy of extensive cultivation.

CHEESE PUMPKIN.

This is a remarkably productive sort of pumpkin, or squash, for it partakes of the properties of both. The vine and fruit resemble the vine and fruit of the crookneck squash, and it seems to be a cross between the crookneck squash and the pumpkin. Vine hardy, the bugs preferring something else. Great grower and bearer, one hill yielding sixteen good pumpkins, averaging ten pounds each; quality superior, shape not constant, varying from nearly round to long; color yellow, like the crookneck squash. Should recommend it for trial on account of its productiveness and good quality.

TOURS PUMPKIN,

Is a French variety that reached a great size, but did not ripen this year. It might do better in a dry, warm season.

HYBRID MARROW SQUASH.

This is a hybrid between the Marrow and the French Chestnut, or, as known to some, the Turban Squash. It grows to medium size; very productive; great grower; shape much like a thick flat turnip; color much like the marrow; meat of a very rich color and of excellent quality. This is a sort that has originated here, and I think it is very promising.

CUSTARD SQUASH,

Is a very good variety for pies; not suitable for table use. Vine hardy and productive. Though I prefer other sorts for pie-making, yet many prefer this, and think it excels all others for this use. Should not advise very extensive cultivation.

PATAGONIA SQUASH,

Is a hard shell pumpkin-like thing, of medium size; hardy and productive—but unsaleable. When ripe, of a bright yellow; quality fair. Should not recommend it.

JAMES F. C. HYDE.

Newton Centre, Oct. 26, 1857.

[TO BE CONTINUED.]

For the New England Farmer.

THE RHINE.

LETTER FROM MR. FRENCH.

HEIDELBERG ON THE RHINE,
August 2, 1857.

MY DEAR BROWN:—My last letter left us at Coblentz by the famous monument of Russian good numor. We left Coblentz on the last day of July, and came up the Rhine through the most beautiful portion of the most beautiful river. The hills, as we leave Coblentz, shut in upon the river before and behind us, and, as we stand on the deck and look forward or backward, it seems as if we were on some small lake like those of New Hampshire, bounded on all sides by precipitous banks. The river is winding enough to make you wonder how the boat is to get on, in its course.

The old castles, perched on the rockiest crags, are increasing in number. The grape terraces go up one above another to nearly a thousand feet in height, giving a landscape rich and quite peculiar to this land of vineyards. Two scenes in my own far-off father-land kept continually coming back to my mind. Though distant and far different from each other, I was reminded of both at every point. One is in my native New Hampshire, as you go from Conway towards the notch of the White Mountains, where the road, not far from the Willey House, winds among the steep dark shadowy hills that seem to shut you in on all sides, and bar your progress in all directions. The Rhine seemed that highway; and the wild hills on her banks seemed the mountains of the Granite State. Again the scene would change; and as we sat under the awning in the warm, quiet day, I seemed to be on the Hudson, up by the Palisades, with a party of pleasant friends, on our way to Albany. And so the Rhine, on a smaller scale, but in a more comprehensible form, because it brought its details of scenery nearer, combined, to my fancy, the beauties of the two most beautiful scenes which my eyes have ever beheld in my own country, and to them added the peculiar features of a wine country. To all this the "Father of Waters" adds the charm of association with the poetry and romance of such as Southey and Byron and Longfellow and Mrs. Norton.

"More mighty spots may rise—more glaring shine,
But none unite in one attaching maze
The brilliant, fair, and soft—the glories of old days.
The negligently grand, the fruitful bloom
Of coming ripeness, the white city's sheen,
The rolling stream, the precipice's gloom,
The forest's growth, and Gothic walls between,
The wild rocks shaped as they had turrets been,
In mockery of man's art."

Even with Byron's aid, I feel how vain is the attempt to convey any adequate impression of the peculiar beauty of this part of the Rhine; but we will hasten on to Bingen, where we arrived at four P. M., and where under the shade of the lindens I wrote you a letter, vainly hoping when I commenced it to describe my journey up the Rhine to Bingen in a single epistle.

The beautiful lines of Mrs. Norton have hallowed the name of Bingen to my mind. I will send them some day to the *Farmer* for publication in the literary department. They commence—

"A soldier of the Legion lay dying at Algiers,
There was lack of woman's nursing, there was dearth of woman's tears;
The dying soldier faltered as he took his comrade's hand,
And he said 'I never more shall see my own, my native land,'
Take a message and a token to some distant friends of mine,
For I was born at Bingen, dear Bingen on the Rhine."

At this place the river makes a considerable bend, and the hills come down into it so abruptly as to narrow its course and increase its current almost into rapids. Here are some of the mills for grinding wheat, which are observed all along the Rhine. They are constructed on large boats anchored in the midst of the stream. Large wheels projecting from the sides are slowly turned by the natural current of the river, carrying shafts to which is geared the machinery which turns the stones. At one or two places we observed a dozen or more of these corn-mills anchored side by side, in a line across the Rhine. The motion of the wheels, slow and lazy, corresponds well with the habits of the people, and with the leisure and dignity of us wanderers who frequent these pleasant waters, where, whatever be our go-ahead propensities, we can move no faster than German steamers and diligences choose to carry us.

Taking a small row-boat, we crossed the Rhine, and made the ascent of a mountain on the other side called the Neiderwald, of which I will give a brief account, as it may throw light upon the character and productions of the soil, as well as upon the habits of the people. The moment we landed, we were met by a dozen men, boys and girls, who proffered us all manner of aid as guides, with horses and donkeys enough for a regiment. Our party consisted of nine persons, five of whom concluded to take each an animal, while the rest of us proposed to walk.

Two Englishmen and one lady and one Canadian took horses, while another gentleman preferred a donkey. Here, as everywhere else in this country, it is usual for each animal to be attended by a man or boy. You can always have a man and mule or horse at the same price as the beast without the man. In these countries where labor is cheap and people plentiful, it is considered a privilege by those persons who have charge of the animals, to keep along with the traveller, trusting to their wits to get enough out of him to support them at least for the time. The man who rode the donkey was a picture rare to see, and we all regretted

that we could not bring home his daguerreotype. He was evidently out as a tourist from the middle of London. He wore, for exteriors, an overcoat with large sleeves turned up with red silk about a foot in width, a high-crowned, stiff, narrow-brimmed hat, an opera-glass suspended by a strap across his shoulder, and a small leather bag filled with maps and guide-books, across the other shoulder. He carried an umbrella, and sat on the smallest kind of a donkey, his feet nearly touching the ground, while a girl of about fourteen, bare-footed and bare-headed, followed the donkey, constantly beating the poor creature with a stick, and talking to him in unknown tongues. She was the only female driver in the party, and she ran along the whole distance, some five or six miles, showing no signs of fatigue. We were met on top of the hill by women and girls, who at various places offered us cherries, pears, apricots, apples and mulberries, of very good quality, of which we were glad to partake.

Both in ascending and descending, we passed through the vineyards, upon which, from the steamer, we had looked with so much interest. I got over the fences, and walked a long distance among the vines to observe carefully the mode of culture. Each vine is tied to a single stake three or four feet high and the vines are planted at about four feet distance, like our Indian corn in rows and hills. The vine is annually cut down nearly to the ground, a few spurs being left, and the fruit grows in a few clusters, very low and close together. On the outside of each enclosure, frequently is a trellis, on which the vines are allowed to run at greater length, forming a sort of border to the field.

On the top of the Neiderwald is a natural heavy forest growth, mostly of oak and beech, just like a hard wood forest in New England, on good land free from stones, the first natural forest I have seen since I crossed the ocean. From the top of the hill, we had a fine view of the level country south of Bingen, a fertile region covered in great part with fields of wheat nearly ripe. On the Rhine below, we watched the huge rafts of timber, with small houses on them, slowly moving with the current down towards Cologne, and perhaps to Amsterdam, and thence across the ocean. We saw also boats loaded with cattle for the markets, and occasionally a small steamer towing a fleet of gondolas, up against the strong current.

On the whole, Father Rhine is a useful institution, as well as an ornamental, and no wonder the children of his shores have attached the paternal appellation to him.

Here again I saw oxen, single or in pairs, working by the horns, and sometimes also a single cow drawing a market-cart through the streets. All their agricultural implements and arrangements are extremely rude and simple, indicating a low state of education and a low standard of comfort.

From Bingen, we again took a steamer up the river to Manheim. Above Bingen, the river becomes less rapid, the hills sink to a lower level, and recede from the banks, and through much of the distance the country adjacent appears flat, but fertile. Still there is great beauty on this part of the Rhine, in the fine estates here and there, the occasional hills rich with vineyards, and the classical storks standing motionless on the islands of sand. The rougher features of the days before gave place to a softer landscape, and as the bright sun hung near the horizon in setting, he threw a rich crimson hue on the river behind us, while the moon in her full glory shed silver light on our pathway forward, forming a rare scene of beauty on the placid water. Between Bingen and Manheim we passed the city of Worms, in sight of the old cathedral where Luther posted his defiance.

Spending a night at Manheim, we came on to Heidelberg, about twelve miles, over a railway owned by the Duke of Baden, and said to be the best in Europe. We passed over a finely cultivated plain, on which are large fields of hops, and of beets for sugar, a few patches of Indian corn and some fields of tobacco of a few acres each, the first corn or tobacco I have observed in Europe. The highways here are not fenced, but are marked out by fruit or ornamental trees planted at regular distances. Large barns are connected here with the farm-houses, capable of containing all the crops, so that the system of stacking hay and grain which is universal in England is probably not practised in this region. And here at Heidelberg, we have passed the Sabbath, attending an English church. This is a city famous for its five hundred students of law and divinity, famous for their duels and beer drinking, famous for its wonderful old castle on the rock and the celebrated "tun of Heidelburg," the largest wine cask in the world, capable of holding six hundred hogsheads. The city is known to fame by its thousand legends, of the Black Forest which lies behind it, and of ghosts and goblins which frequent German Universities, and are produced in history by German students.

We found several young Americans here, students in the University, who gave me a cordial greeting, and to whom I am indebted for as much attention as it was possible for them to show to one of their countrymen.

I may say here that the Englishmen with whom I travelled through the continent were struck with surprise at the brotherly feeling manifested towards me by every American we met. Englishmen passed each other, in a strange land like priests and Levites, but in Americans from North or South, West or East, I met always friends and brethren, and together we thanked Heaven that we had so goodly a heritage.

Your friend, H. F. FRENCH.

For the New England Farmer.

BUTTER PRODUCTS.

MR. EDITOR:—Being honored with the appointment to examine stock, at the late State Fair in Boston, I endeavored to inform myself as well as I might, as to the making of butter, by inquiries of some of the best experienced managers of dairies present. As in duty bound, I first inquired of the venerable gentleman of Framingham, who is so well known for his Devon stock, *four quarts* of their milk making a pound of butter. This he said was so, and produced two certificates of females, averring this fact. Who can for a moment doubt what ladies certify? I mean ladies who milk cows and make butter, for they may be as much of ladies who do this, as those who perambulate Beacon or Park Street.

I next applied to the eminent farmer of Princeton, who has taken so large a share of premiums for his fine stock, and superior dairy management, and learned from him and his certificates, that under circumstances most favorable, it took at least *eight quarts* of his milk to make a pound of butter. I learned the same thing from Mr. Robinson, of Barre, and Mr. Sewall, of Medfield, both of whom have been long known, as highly successful managers of dairies. I ask them how does it happen that cows fed on the sandy plains of Middlesex, will yield milk, that will produce twice as much butter as the cows that feed on the fertile soil of Worcester and Norfolk? There is a mystery in this matter that I cannot comprehend. If you or your neighbors of the *Ploughman* can explain it, I should be pleased to have it done. I forbear to say more, having briefly stated the *quere* that occurred when viewing the stock on the field. For myself I have never seen milk superior to that produced by the cows of Mr. Brooks, Mr. Robinson and Mr. Sewall, and I distinctly understood each and all these gentlemen to say, under circumstances most favorable, it required at least two gallons of their milk for a pound of butter. I am sure that it requires as much as this on the best farms in my neighborhood, and from the best cows also, aye, even the best of the Ayrshires and the Jerseys.

October 24, 1857. ESSEX.

For the New England Farmer.

CORN STALKS AND MANURE IN THE WEST—SUGAR CANE.

FRIEND BROWN:—I noticed, in a late number of the *New England Farmer*, a short article written from Buchanan County, by "H. W.," on this subject, and being somewhat surprised at the idea that manure is useless to the soil, my pen is called up. If friend W. has never seen manure applied to any crop but wheat, and has not thought of the great contrast there is between the wheat and corn crop, in relation to their growth, it may not be strange that he should so write, for the soil surely is as rich as wheat or oats will bear, but corn, perhaps, cannot be driven too hard. I have tested the use of manure in Iowa, and witnessed the effect where used by others for corn, and think I never saw greater increase of crop by the application of manure in any country. While the soil here is very rich and deep, still it is not inexhaustible, it will wear out, and my idea is, that it would be better to try to keep it up while it is rich, than by and by to have to reclaim it or emigrate to the West. Corn stalks should always be plowed in where they will not too much interfere with tending the next crop.

While I am writing, I will say that the experiment with the *Chinese Sugar Cane* this year has been very satisfactory here. Those who have tried it, think it worth attention. One temporary crusher has been going within our hearing for a month. It is believed that it will make sugar, though it is often stated that it will not grain. D. FRY.

Oskaloosa, Mahasha Co., Iowa, 10 *mo.*, 1857.

For the New England Farmer.

TEMPERANCE AND CHEERFULNESS.

BY WILSON FLAGG.

Beneath a wood, within a still retreat,
At once the muse's and the rambler's seat,
Where healthful gales and running waters play,
Hard by her sacred fountain, day by day,
There sits a gentle maiden; round her brows
Th' unfading bloom of health and beauty glows.
Her name is Temperance; and when she descends,
To fill her urn from the pure stream she tends,
She seems the daughter of the Morning, clad
In all those charms that make her rising glad.
She's girded with a wreath of evergreens,
That twine their foliage round these rustic scenes,
To emblem her perpetual youth. She bears
A cup that charms away disease and cares.
Her breath is like the fragrant breath of morn,
While yet the flower is fresh upon the thorn.
The youthful maids that follow in her train
Are like the roses seen on Sharon's plain;
Resembling, in their toils that never cease,
Those who came down from heaven to publish peace.

Close by her side are sheaves of many a sort
Of native simples: mint and thorough-wort,
Hardhack, life-everlasting, winter-green,
And many an herb for sickness or the spleen:
For nature has provided herbs to cure
All ills the spirit and the flesh endure.
Full many a flower whose tints we fail to note,
Springs from the root of some good antidote;
And many a humble leaf whereon we tread,
Has power to raise the sick man from his bed.

She bears a cup, not filled with wanton cheer;
It ne'er excites a laugh, nor draws a tear.
It is the healthful fluid that promotes
The growth of herbs, inspires the warbler's notes;
Gives hues to heaven, and blossoms to the trees,
Freshens the earth and purifies the breeze.
She's a true friend of mirth; but it is still
And tranquil, like the motions of the rill,
That quietly meanders through the grass,
And sings a tune where'er its waters pass.
'Tis mirth subdued and calm, that ne'er attains
To madness and then stupefies the brains—
Like rapture from the inebriating bowl—
But a perpetual sunshine of the soul,
Serene and holy as the face of even,
When she sits blushing in the light of Heaven.

There is a sister angel at her side,
Found ever where content and peace abide:
Her name is Cheerfulness: she has the power
To calm the heart in sorrow's darkest hour.
She's never seen among the rioters:
The haunts of frugal wisdom she prefers.
The reveller's mirth is vacant and unholy,
Attended by despair and melancholy:

Like bubbles on the wind, their spirits soar,
Sparkle and flash, then burst, and all is o'er.
But Cheerfulness joins not their drunken dance:
She's ever at the fount of Temperance:
One always follows where the other leads,
Droops when she's absent, trembles when she bleeds.
One bears the water from the fountain's brink;
The other stands and blesses those who drink.

Happy were man, if he could but believe
The precepts wisdom gives him to retrieve
His long-lost blessings, ever since the curse
That fell on man, as told in Sacred verse.
He must return to nature, and refuse
Those sinful pleasures base Temptation strews;
From wisdom's hands receive what she bestows,
And taste those joys his folly now foregoes.
Then would the days of Eden be restored,
With blessings early lost and long deplored.

THE FARM AS A WORK OF ART.

As a work of art, I know few things more pleasing to the eye, or more capable of affording scope and gratification to a taste for the beautiful, than a well-situated, well-cultivated farm. The man of refinement will hang with never-wearied gaze on a landscape by Claude or Salvator; the price of a section of the most fertile land in the West would not purchase a few square feet of the canvass on which these great artists have depicted a rural scene. But nature has forms and proportions beyond the painter's skill; her divine pencil touches the landscape with living lights and shadows, never mingled on his pallet. What is there on earth which can more entirely charm the eye, or gratify the taste, than a noble farm? It stands upon a southern slope, gradually rising with variegated ascent from the plain, sheltered from the northwestern winds by woody heights, broken here and there with moss-covered boulders, which impart variety and strength to the outline. The native forest has been cleared from the greater part of the farm, but a suitable portion, carefully tended, remains in wood for economical purposes, and to give a picturesque effect to the landscape. The eye ranges round three-fourths of the horizon over a fertile expanse, bright with the cheerful waters of a rippling stream, a generous river, or a gleaming lake, —dotted with hamlets, each with its modest spire; and, if the farm lies in the vicinity of the coast, a distant glimpse from the high grounds, of the mysterious, everlasting sea, completes the prospect. It is situated off the high road, but near enough to the village to be easily accessible to the church, the school-house, the post-office, the railroad, a sociable neighbor, or a travelling friend. It consists in due proportion of pasture and tillage, meadow and woodland, field and garden. A substantial dwelling, with everything for comfort and nothing for ambition,—with the fitting appendages of stable, and barn, and corn-barn, and other farm buildings, not forgetting a spring-house with a living fountain of water,—occupies, upon a gravelly knoll, a position well chosen to command the whole estate.

A few acres on the front, and on the sides of the dwelling, set apart to gratify the eye with the choicer forms of rural beauty, are adorned with a stately avenue, with noble, solitary trees, with graceful clumps, shady walks, a velvet lawn, a brook murmuring over a pebbly bed, here and there a grand rock, whose cool shadow at sunset streams across the field; all displaying, in the real loveliness of nature, the original of those landscapes of which art in its perfection strives to give us the counterfeit presentment. Animals of select breed, such as Paul Potter, and Morland, and Landseer, and Rosa Bonheur never painted, and roam the pastures, or fill the hurdles and the stalls; the plow walks in rustic majesty across the plain, and opens the genial bosom of the earth to the sun and air; nature's holy sacrament of seed-time is solemnized beneath the vaulted cathedral sky; silent dews and gentle showers, and kindly sunshine, shed their sweet influence on the teeming soil; springing verdure clothes the plain; golden wavelets, driven by the west wind, run over the joyous wheat field; the tall maize flaunts in her crispy leaves and nodding tassels;—while we labor and while we rest, while we wake and while we sleep, God's chemistry, which we cannot see, goes on beneath the clods; myriads and myriads of vital cells ferment with elemental life; germ and stalk, and leaf and flower, and silk and tassel, and grain and fruit, grow up from the common earth;—the mowing machine and the reaper—mute rivals of human industry—perform their gladsome task; the well-piled wagon brings home the ripened treasures of the year; the bow of promise fulfilled spans the foreground of the picture, and the gracious covenant is redeemed, that while the earth remaineth, summer and winter, and heat and cold, and day and night, and seed-time and harvest, shall not fail.—*Edward Everett.*

For the New England Farmer.

DRYING CORN, AND CORN CRIBS.

Happening one day to be *thinking*—as is often the case—the idea came into my mind while in a *corn* chamber, Why not dry this corn in some way to take up less room, and do away the necessity of spreading it over the floor of every shed-chamber and spare room in the house, as is often the case in many portions of New England, and also prevent the heating or sweating of the corn, requiring it to be stirred or "raked over" every day, as many farmers are in the habit of doing, till the corn is dried off.

Over every shed, corn-chamber or spare room is a roof. Every roof is supported by *rafters.*—Between all rafters are *spaces.* During much of the season after the corn-husking time, the sun heats the roof so that a powerful drying would be effected on all substances directly inside the boards. Of course, then, if we can put our corn up against the inside of these roofs, and confine it there without too much labor, we shall gain the heating of the corn by the sun upon the outside of the roof. My plan for doing so is this. Run a pole or joist lengthwise the roof, and as near the rafters as to give the corn sufficient depth, say 18 inches from the boards, or perhaps more, and as near the top as you wish to pour in corn either from the floor or standing on a box or ladder. Confine this pole by *stays* nailed from the rafters, or by strong wires running through the rafters. Place a second near the foot of the rafters or on the floor and one in the middle, if necessary, to support the corn. Upon these poles let slats of board be *laid*—not nailed —so near each other that the corn will not fall through. The bottom end resting on the floor or

on a board, will be kept constantly in place by the weight of the corn. This extended across the length of the roof and within 3 feet of the ridge, will give on each side more space for drying than the entire floor, inasmuch as it can be thicker, as the air has a free circulation both under and through the entire length. By this means also, the space on the floor is saved for other stores or for threshing the corn, and there is no need of *stirring*, which is no small "chore."

When the corn is to be threshed slip the slats apart, and you are ready by raking the corn to the centre of the space on the floor.

If this method should be adopted where there is no regular corn-house, as many farms have not, many wives and daughters would not be "*bothered*" by the house being "cluttered up" with corn. Being in duty bound to give our wives and daughters all the room they need for mental and "constitutional" *expansion* at the present day, let us, brother farmers, see to it that we plan our own part of husbandry so as to have no war about unoccupied Territory. P. J.

Vt., Oct., 1857.

CARROTS.

Boston, Feb. 12, 1857.

MY DEAR SIR:—I promised to send you some facts relating to the cultivation of carrots, and here they are:

My land may be said to be naturally rich, having a thick surface of loam resting on clay and gravel sub-soil. It has been plowed once in the autumn and twice in the spring, with a Michigan plow, giving a furrow of ten or twelve inches, and well harrowed and raked when planted. It has also been cleared of stones, and is in a condition to raise garden vegetables—it is on the side of a hill sloping to the south.

I have had from one to two acres under cultivation. I planted as soon as the ground was dry enough, and have suffered some delay from a portion of the ground being somewhat springy—a defect which is now remedied by drains four feet deep and forty feet apart—constructed in part with stones and partly with tile—the cost of which I expect will be repaid in two or three seasons, by an increase of product.

For the first year, the land having been neglected, I put on seven or eight cords of first quality barn manure. For the succeeding three years it was reduced to six cords, mixed in the manure cellar with nearly an equal quantity of loam. The rows for three years were twenty-four inches apart, reduced last season to eighteen inches. I gave three hand weedings, probably two has commonly been made to answer, in fields having a less luxuriant and abundant growth. They are left in the ground till liable to be injured by the frost—say from the first to the tenth of November. Were the season longer, they would gain proportionally in size.

The four crops have averaged 920 bushels to the acre, in a careful measurement of the land. The weight of the bushel varies somewhat, according to the size of the roots, but I call it fifty pounds, which is rather below the average. At that rate, the product would be twenty-three tons.

The first season I sold at $8 per ton, but it was below the market price. Since then I have found a ready sale at $10 per ton, taken from the field as gathered, by the purchasers. The proceeds in this case amounted to $230 per acre.

Six cords of manure, at $8 per cord, cost $48. The various operations of plowing, weeding, &c., I estimated from such data, as I had, at $72, making the entire expense of cultivation $120. Here is a profit of $110 per acre.

I would observe, in respect to the cultivation of this vegetable, that, so far as my limited experience has taught me, it has not suffered from frost or much from drought, nor from worms or insects,—nor have I lost so much as a bushel from field-mice or decay. Such a declaration cannot be made, at least by me, in favor of any other vegetable.

With such an unusually large profit on this article, it will naturally be asked, why it has not been more generally and more extensively cultivated, and in a State where feed for horses, &c., is so extremely high, and for much of which we have to rely on importation from other States? The reason is apparent to my mind—from the insufficient returns usually obtained by the cultivators.

It appears by the Census of Massachusetts for 1855, that crops of carrots ranged from 220½ to 616 bushels per acre, the average being 427 1-7 bushels, equal to 10 7-10 tons per acre. They produce in the aggregate $148,041,00, equal to $9,40 per ton. Here the profit to the most successful planters was small, and less than none to a majority of them. One consequence of which the entire quantity reported amounted to the insignificant one of 15,536 tons, whereas, if the cheapness of this feed in raising cattle, and for horse and cow feed, be taken into consideration, we ought to have had ten times that quantity.

I have taken some pains to exhibit the results of my labors to my neighbors in Brookline, but they have pursued what seemed to them more profitable branches of farming. Some few exceptions are to be found whose crops have come up to mine, but to no greater extent than for their own limited consumption.

I hope you will do more in raising this cheap and valuable vegetable than you have heretofore done, and that you will as far surpass my doings, as I have those of other farmers. I am with great regard and affection your friend and servant,

HENRY LEE, *in Waltham Sentinel.*

For the New England Farmer.

DAVIS SEEDLING POTATOES.

MR. EDITOR:—In the spring of 1854 I noticed an advertisement in your paper, the *New England Farmer*, of Messrs. Hyde, of Newton, offering the above named potatoes for sale at two dollars per bushel, and highly recommending the same. I wrote and enclosed in my letter two dollars requesting them to send me some of the Davis Seedlings, and I received one bushel, which I planted; they did remarkably well. I have continued to plant them to the present time, and my crop was better the present fall than any season heretofore. I consider them a fine cooking potato, and not subject to rot or decay. I had seventy bushels on less than a half-acre of land, and I do not think there was one-fourth bushel spotted or decayed in the lot. I planted them on a dry, loamy soil, manure spread

and plowed in, then manured in the hill, and about one gill of plaster and ashes to each hill; fourteen hills, as they averaged, produced one bushel of very even size.

We have had the potato panic for several years past, and now have the money panic, *the worst kind.* But if we can raise potatoes as above stated, for one I shall not be afraid of starvation. I feel that any thing that can be said or done, as regards the raising of potatoes in these decaying times, may be useful to the public at large. FORBES HYDE.

Chester, Hampden Co., Mass., Oct., 1857.

GROWTH OF WOOD IN MASSACHUSETTS.

One principal objection to railroads, when they were in process of construction several years ago, was, that they would require more wood than could be grown in the State, would soon exhaust all that was then standing, and enormously increase the price of fuel everywhere. Wherever a line of road had been laid, and the locomotive running for a single year, persons would point to the barren hills along its route, and exclaim, "Already our hills are stripped of their forests, the price of wood has increased, the springs will soon be dried up, and the injury they will cause to the country will be infinitely more than all the good they can do." Such was the common opinion; if there were exceptions it was among those who had investigated the laws of vegetable reproduction, who had noticed the wasteful extravagance of the wood and timber of the country, and who felt confident that economy and a judicious preservation of the forests would go far to meet all the wants of our people.

It is true, that the demand upon our woodlands, created by the use of railroads, has been enormous, and that tens of thousands of acres of most beautiful forests have been prostrated to feed the iron monster whose nostrils are a flaming fire; and yet it is believed that *there is as much wood now growing in Massachusetts as there has been at any time within twenty years.* This may be accounted for in two or three ways. Where land is good, and a forest is cut clean, if cattle or sheep are not allowed to browse it, another growth suitable for fuel, with occasional trees fit for timber, will succeed it in *twenty* years, and on ordinary, or even poor lands, in *thirty* years. When our people became sensible that the demand for fuel had greatly increased, and that its consumption was every day more and more, they cast about them to learn how it might not only be economized, but how it might be reproduced in large quantities—the problem was a new one, but they soon solved it wisely and well.

They learned, first, that woodlands require protection and care, as well as other crops; that judicious thinning, and occasional pruning of dead wood, and chafing limbs, or the cutting away of trees that had fallen into each other, and the admission of sun and air, all proved of essential service, and promoted the growth of the whole.

The next thought was that of greater economy in the use of wood, and a legion of cooking, air-tight, and other stoves, took the place of the open fire; a single back-log, rolled in by the united strength of two men, and brought into place by the aid of stout levers or stakes kept for the purpose, sawed, split, and dried, would now supply a single stove for a week or ten days, warm half of the house, and cook all the food for the family.

These were all important changes, and each became the cause of special improvements. But the last thought put into practice, has been of more benefit than all the others, by increasing the amount of fuel, while indirectly it has greatly increased the general product of the farm. It was this:—That *less land* should be kept in tillage, but be deeper plowed, more highly manured, and cultivated in every respect, in a manner altogether better than it had ever been before, and thus *leave a larger portion of land to grow up to wood.* This plan has been adopted in thousands of instances, and has proved essentially beneficial in all cases. The farm that lies underneath the one usually cropped, has been found to contain uncounted treasures, while a more liberal manuring and a drained and highly pulverized soil has nearly doubled the crops. In this process thousands of acres have been devoted, first to pasture, and as the cultivated lands gradually yielded an unusual amount of forage, either by grazing or by soiling, these pasture lands have been allowed to go to bushes and then to woods.

"Is there so much land in wood, now, in this State, as there was twenty years ago?" has been our inquiry in every part of the Commonwealth which we have visited, and the answer has been in every instance in the affirmative. Some of the reasons for this have already been given. The supply has been kept good by economy, by the introduction of improved modes of heating and cooking, and by the application of more scientific principles in the modes of preparing the soil and cultivating the crops. Necessity is, therefore, not only "the mother of invention," but prompts to improvement in every department of labor.

A NEW ANIMAL AMONG US.—P. R. FREAS, editor of that well-known and long-established journal, the *Germantown Telegraph*, informs us that Isaac Lohmann, Esq., of New York, is about to introduce—if they have not already arrived—some one hundred and fifty *Llamas* into the country, from South America. The reader may find in another column an advertisement, giving more particulars in relation to them.

For the New England Farmer.

BE THOROUGH IN FARM WORK.

MR. EDITOR:—As a friend to the farmer, I would that you could make all that pretend to be farmers, farmers indeed. One farmer comes into my pig-sty and says, "how convenient your pen is, what nice pigs, what have you fed them on to keep them so fat? Why, they cannot feel these winds at all, your pen is so warm!" Another man enters the cow-yard,—"what a warm yard, how sleek and nice your cows look; mine are most dried up, and these cold days make them shabby and bad; you must meal yours, or they would not be so glossy; but then they are a good color, and show off well!"

Another enters the barn,—"what a nice barn, how convenient and warm. I wish I had such a one in the place of the one I built last year, but yours cost so much I thought I could not afford it." Another enters the hen-house,—"what nice fowls, what kind are they; do your hens lay? mine have not laid for a month, and some times I am tempted to sell them all, for they are no profit." (And well he might, if he cannot take care of them.)

A neighbor says, "what is the reason my corn is not as good as yours? I plant the same seed, and hoe it as well as you do yours."

Brother, are you the man that views your neighbor's property in this way? If so, listen one moment and I will let you into his secret.

When he builds a barn, he begins at the foundation and builds it well, and attaches good sheds to it, with sty and hen house handy by.

1. He builds it well, that he may not have to repair next year.

2. He builds convenient, for the same reason that you would like your house convenient—he visits it often.

3. He builds it warm, for he wishes to accumulate property, and he knows his cows will pay the extra expense next summer with interest; besides, he saves fodder, for a cow well tended and kept warm, will be of good color and look sleek with three-fourths the feed that is necessary for a cow not sheltered from the driving storms of winter. A cow kept warm, with good care, will give milk most of the year, while the opposite will go dry four months out of the twelve. He keeps his cows in the yard with plenty of good water, and by so doing, saves the manure which makes that large crop of corn you so much covet.

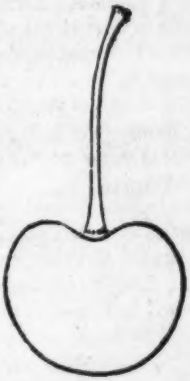
Young farmer, go to work, feed your cattle, hogs and hens regularly, and keep them warm, and then you can brag over your slovenly neighbors. Dig deep, manure well, sow early, keep the weeds down, and harvest a crop that pays well. ESAU.

CHERRIES.

We copy from Cole's "Fruit Book" the outlines and description of a few of the well established varieties of this delicious fruit. Cherries come in earlier than almost any other fruit, and though not generally very marketable, are among the fruits which every farmer ought to have for his own domestic use. The Bigarreau and heart-shaped cherry are superior to all other kinds in the beauty and symmetry of the tree. Growing frequently to the height of forty or fifty feet, and with regular, vigorous spreading branches, they are exceedingly ornamental.

BLACK TARTAREAN, *Double Heart*, formerly in New England. Very large; heart-shaped; flesh purple, half tender, juicy, with a rich, pleasant flavor. Stone small. Ripens generally from June 23 to July 4. A very vigorous, upright grower, and great bearer. Leaves large. Rather tender for the cold region. The trees occasionally crack, the gum oozes out, and they decline. The fruit middling hardy. Very saleable from its large size. Origin, Russia. Class 1.

FLESH-COLORED BIGARREAU, *Large, Heart-shaped Bigarreau of Manning*. Very large; oblong, rather acute heart-shaped; yellowish flesh-color, marbled with bright red in the sun; stalk of moderate length, slim, in a narrow, deep cavity; flesh nearly tender at full maturity, very juicy, sweet, pleasant flavor. A few days earlier than Bigarreau, and more profitable for market, being less liable to rot; superior to Napoleon Bigarreau, as a better bearer. French origin. Class 1.



FLORENCE. Large; obtuse heart-shaped; amber-color, marbled with red; bright red fruit in the sun; stem of moderate length, slender; flesh yellowish, firm, juicy, sweet, and excellent. Hangs on long. June 20 to July 20. Class 1.

CLEVELAND BIGARREAU. Extremely large; roundish, heart-shaped, with a broad, deep suture; clear, bright, delicate red, on an amber-yellow ground; stalk rather short, middling stout, curved; flesh pale yellowish-white, firm, juicy, of a sweet, rich flavor. Ripens with Black Tartarean. It resembles the Bigarreau in tree and fruit, but is a greater bearer, and (from four years trial) not liable to rot. Class 1.

LIST OF PREMIUMS,

AWARDED AT THE LATE EXHIBITION OF THE MASS. STATE BOARD OF AGRICULTURE.

The figure at the left of the line, denotes the grade of the premium. The judges reserving the right to withhold any premium offered, if there should be no animal or article deserving it, the first premiums were in some cases not awarded. Discretionary premiums and gratuities must be acted upon by the Board, before being paid. Several diplomas were awarded for articles on which no premiums were offered, but these are not included in our list.

CATTLE.—DURHAM.

HERD PREMIUM.

1. Paoli Lothrop, South Hadley Falls, $50

BULLS—*Three years old.*

1. E. Pease, Middlefield, 30
2. William Robinson, Jr. & Co., Barre, 20
3. J. A. Harwood, Littleton, 15

Yearlings.

1. Samuel R. Burroughs, Warren, 15

COWS AND HEIFERS—*Three years old.*

1. Paoli Lothrop, South Hadley Falls, 30
2. " " 20
3. " " 15

Two years old.

1. Paoli Lothrop, 20

Yearlings.

1. Paoli Lothrop, 15

CALVES.

1. Paoli Lothrop, for bull calf, 15

GRATUITIES RECOMMENDED.

L. F. Buffum, Winchester, N. H., for three beautiful heifers, 30
David Mosely, Westfield, bull three years old, 10

DEVON.

HERD PREMIUMS.

1. William Buckminster, Framingham, $50
2. Harvey Dodge, Sutton. *Diploma.*

BULLS—*Three years old.*

1. H. M. Sessions, South Wilbraham, 30
2. John Brooks, Jr., Princeton, 20
3. Samuel Chandler, Lexington, 15

Two years old.

1. William Buckminster, Framingham, 20
2. Harvey Dodge, Sutton, 10

Yearlings.

1. John Brooks, Jr., Princeton. 15
2. William Buckminster, Framingham, 10
3. Harvey Dodge, Sutton, 5

COWS AND HEIFERS—*Three years old.*

1. John Brooks, Jr., Princeton, 30
2. William Buckminster, Framingham, 20
3. Harvey Dodge, Sutton, 15

Two years old.

1. John Brooks, Jr., Princeton, 20

Yearlings.

2. William Buckminster, Framingham, 10
3. " " 5

Calves.

1. Harvey Dodge, Sutton, 5
2. John Brooks, Jr., Princeton, bull calf, 5
3. " " heifer do., 3

AYRSHIRE.

BULLS—*Three years old.*

1. Leonard Hoar, Lincoln, $30
2. John Brooks, Jr., Princeton, 20
3. A. S. Lewis, Framingham, 15

HEREFORD.

HERD PREMIUM.

1. O. Clark, Boston, $50

BULLS—*Yearlings.*

1. O. Clark, Boston, 15

COWS AND HEIFERS—*Three years old.*

1. O. Clark, Boston, 30
2. " " 20

JERSEY.

HERD PREMIUMS.

1. Thomas Motley, Jr., West Roxbury, $50
2. J. P. Cushing, Watertown, *Diploma.*

BULLS—*Three years old.*

1. Thomas Motley, Jr., West Roxbury, 30
2. Dr. C. C. Field, Leominster, 20
3. A. D. Weld, West Roxbury, 15

Two years old.

1 M. Hartwell, Littleton, 20
2. George B. Loring, Salem, 15
3. Jonathan French, Roxbury, 10

Yearlings.

1. T. W. Pierce, Topsfield, 15
2. T. Motley, Jr., West Roxbury. 10
3. H. H. Hunnewell, West Needham, 5

COWS AND HEIFERS—*Three years old.*

1. T. Motley, Jr., West Roxbury, 30
2. J. P. Cushing, Watertown, 20
3. W. Spencer, Lowell, 15

Yearlings.

2. A. S. Lewis, Framingham, 10

GRADE AND NATIVE.

HERD PREMIUMS.

1. Harvey Dodge, Sutton, $50
2. John Brooks, Jr., Princeton, *Diploma.*

COWS—*Three years old.*

1. William Eames, Worcester, 30
2. Harvey Boyles, Princeton, 20
3. William Robinson, Barre, 15

Two years old.

1. N. Dodge, Sutton, 20
2. William Barrett, Barre, 15
3. Samuel Ellsworth, Barre, 10

Yearlings.

1. Calvin Baker, Brimfield, 15
2. John Brooks, Jr., Princeton, 10
3. Thomas J. Field, Northfield, 5

GRATUITY.

L. F. Buffum, Winchester, N. H., two fine yearling heifers, 5

MILCH COWS.

FIVE YEARS OLD.

1. W. Robinson, Jr., Barre, $30
2. Samuel Ellsworth, Barre, 20
3. Wm. Eames, Worcester, 15

THREE YEARS OLD.

1. Warren Ordway, Bradford, 20
2. W. Robinson, Jr., Barre, 15
3. Samuel Ellsworth, " 10

FAT CATTLE.

BULLOCKS.

1. H. Taylor, Westfield, $30
2. T. J Field, Northfield, 20
3. H. Taylor, Westfield, 10

GRATUITIES RECOMMENDED.

Samuel Ellsworth, Barre, 10
Reuben Thompson, Plympton, 6

WORKING OXEN.

Four years old and upwards.

1. J. B. Moore, Concord, $50
2. Nathan B. Reed, Princeton, 40
3. N. Dodge, Sutton, 30
4. L. Maynard, Bradford, 20

DISCRETIONARY PREMIUMS.

S. C. Sanborn, Westboro, 15
Rufus King, Sutton, 10

Three years old.

N. Dodge, Sutton, 15

HORSES.—THOROUGH BRED.

STALLIONS.

1. Q. A Shaw, Boston, $40
2. Phillips & Hammond, Brookline, 30
3. J. J. Merrill & Co., Roxbury, 20

MARES.

1. Q. A. Shaw, Boston, 40

ROADSTERS.

STALLIONS—*Four years old.*

1. Lambert Maynard, Bradford, 40
2. S. Langmaid, Cambridge, 30
3. Charles Boynton, Georgetown, 20

Three years old.

1. R. S. Denny, Clappville, 30
2. J. H Billings, West Roxbury, 20
3. S. Hayes, Natick, 10

Two years old.

1. A Howe, Brighton, 20
2. B. Whitman, Stowe, 15
3. Isaac Mills, Worcester, 10

One year old.

1. A. B. Magoun, Cambridgeport, 15
2. W. H. Harrington, Salem, 10
3. S. J. Capen, Dorchester, 5

MARES—*Four years old.*

1. David Ellis, Cambridge, 40
2. J. B. Glover, Boston, 30
3. George Twichell, Brookline, 20

GELDINGS—*Four years old.*

1. E. Johnston, Winchester, 40
2. W. Simonds, South Danvers, 30
3. Edwin Gould, Jr., Boston, 20

BROOD MARES, *with Foals at their side.*

1. Jos. Burnett, Southboro, 40
2. O Clark, Boston, 30

DISCRETIONARY PREMIUMS.
J. Wise, 5
C. D. Nourse, Shewsbury, 5
J. H. Bent, Concord, 5

MATCHED HORSES.
Over sixteen hands high.
1. Dr. Robbins, Boston, 40
Under sixteen hands high.
2. J. D. W. Sherman, Dorchester, 20
3. Lotan Gassett, Boston, 10
GRATUITY RECOMMENDED.
W. R. Wheelock, Grafton, 10

DRAFT HORSES.
Matched.
1. T. J. Hewes, Boston, 50
2. C. R. Cutter, Boston, 25
3. Caleb Howe, Jr., Boston, 10
Single.
1. J. F. Keating, Boston, 25
2. J. E. Wilder, Chelsea, 10

PONIES.
Matched.
1. G. M. Dexter, Boston, 20
Single.
1. Mrs. J. Bryant, Jr., Boston, 10

SADDLE HORSES.
1. R. S. Denny, Clappville, 30
2. Charles Boynton, Georgetown, 20
3. S. Crockett, Boston, 10
Joshua Wilkins, Dorchester, *Diploma.*
J. Gibson, West Cambridge. *Diploma.*

HORSES FOR GENERAL UTILITY.
BROOD MARES, *with Foals at their side.*
1. L. Maynard, Bradford, $40
2. Samuel P. Smith, Holliston, 30
3. J. B. Moore, Concord, 20
DISCRETIONARY PREMIUMS.
N. Cutter, Medway, 5
John Dugan, Somerville, 5
MARES—*Four years old and upwards.*
1. R. S. Denny, Clappville, 40
2. Genery Twichell, Brookline, 30
3. T. J. Clark, Cambridge, 20
DISCRETIONARY PREMIUMS.
S. K. Johnson, North Andover, 15
GELDINGS—*Four years old and upwards.*
1. B. F. Danforth, Boston, 40
2. Dr. E. A. Allen, Randolph, 30
3. C. W. Bellows, Pepperell, 20
DISCRETIONARY PREMIUMS.
Col. Thomas Adams, Roxbury, 10
Henry Blanchard, East Stoughton, 5

SHEEP.—LONG WOOLLED.
BUCK—*Two years old.*
1. T. J. Field, Northfield, $10
EWES—*Two years old.*
1. T. J. Field, Northfield, 10
2. L. B. Morse Boston, 7
3. T. J. Field, Northfield, 5
Under two years.
1. L. B. Morse Boston, 10
2. T. J. Field, Northfield, 7
3. " " 5

MIDDLE WOOLLED.
BUCKS—*Two years old.*
1. Walter Field, Northfield, $10
Under two years.
T. J. Field, Northfield, 10
2. T. Motley, Jr., West Roxbury, 7
3. A. S. Lewis, Framingham, 5
EWES—*Two years old.*
1. T. Motley, Jr., West Roxbury, 10
Under two years.
2. T. Motley, Jr., West Roxbury, 7

SILECIAN MERINOS.
BUCKS—Geo. Campbell, Westminster, Vt., 15
EWES " " " $10 *and Diploma.*

FRENCH MERINOS.
BUCKS—L. F. Buffum, Winchester, Mass., *Diploma.*

SPANISH MERINOS.
BUCKS—Geo. Campbell, Westminster, Vt., 15
EWES " " " $10 *and Diploma.*
" Walter Field, Northfield, 7

CROSS BREEDS.
BUCKS—*Two years old.*
1. R. S. Denny, Clappville, $10
2. C. W. Cushing, South Hingham, 7
Under two years.
1. Albert Kelly, Auburn, 10
EWES—*Two years old.*
3. Albert Kelly, Auburn, 5

FAT SHEEP.
Two years old.
1. T. J. Field, Northfield, $10
2. " " 5
Under two years.
1. J. W. Hollis, Brighton, 10
2. " " 5

SWINE.—LARGE BREED.
BOARS—*Two years old.*
3. J. D. Ludden, Braintree, $5
One year old.
1. Leonard Hoar, Lincoln, 8
2. G. F. Darling, West Needham, 5
SOWS—*Two years old.*
1. A. G. Sheldon, Wilmington, 10
2. G. F. Darling, West Needham, 8
3. W. Thompson, North Bridgewater, 5

SMALL BREED.
BOARS—*Two years old.*
1. J. & I. Stickney, Boston, $10
2. Joseph Kittredge, North Andover, 8
One year old.
1. David Wilder, North Bridgewater, 8
3. A. W. Starbird, Malden, 3
SOWS—*Two years old.*
1. Harvey Dodge, Sutton, 10
2. J. & I. Stickney, Boston, 8
3. Joseph Kittredge, North Andover, 5
One year old.
2. Joseph Kittredge, North Andover, 5
3. O. Clark, Boston, 3

OTHER BREEDS.
BOARS—*Two years old.*
1. Charles R. Damon, Cochituate, 10
SOWS—*Two years old.*
1. A. G. Sheldon, Wilmington, 10

PIGS.
Six months old, and under ten.
1. A. S. Lewis, Framingham, 10
Under six months.
1. G. F. Darling, West Needham, 8
2. Harvey Dodge, Sutton, 5
GRATUITY RECOMMENDED.
David Wilder, North Bridgewater, 8

POULTRY.

GALLINACEOUS FOWLS.
Best collection—S. Southland, Danvers, $10
2nd best collection, E. P. Hollis, W. Needham, 5
DISCRETIONARY PREMIUMS.
C R. Damon Cochituate, 3
Isaac Osgood, West Newton, 3
SHANGHAI, BUFF.
1. T. Smith, Needham, 3
BLACK SPANISH.
1. Rupp & Hunt, Wilmington, 3
2. H. P. Perrin, Brookline, 2
HAMBURGHS.
1. J. T. [illegible] & Co., Bridgewater, 3
2. H. P. Perrin, Brookline, 2
GAMES.
1. Rupp & Hunt, Wilmington, 3
2. C. F. Curtis, Jamaica Plain, 2
BANTAMS.
1. White—E. Wight, Dedham, 3
1. Black " " 3
BOLTON GRAY.
1. George Dorr, Dorchester, 3
2. John H. Bent, Concord, 2
FRIZZLED FOWLS.
Isaac Osgood, West Newton, 2

TURKEYS—DOMESTIC.
1. C. F. Curtis, Jamaica Plain, $3
2. E. P. Hollis, West Needham, 2

DUCKS—AYLESBURY.
1. W. Bent, Cochituate, 3

GEESE—BREMEN.
1. W. G. Lewis, Framingham, 3
2. A. S. Lewis, Framingham. 2
DISCRETIONARY PREMIUMS.
Samuel Jacques, Somerville, 2
G. B. Metcalf, Franklin, 2
CHINA.
Samuel Jacques, Somerville, 3
HONG KONG.
Samuel Jacques, Somerville, 3
WILD.
1. A. S. Lewis, Framingham, 3
2. W. G. Lewis, Framingham, 2

SWANS.
1. E. Wight, Dedham, 3

AGRICULTURAL PRODUCTS.

FLOUR.

Best barrel from wheat grown in this State, Chase & Mason, Fall River, *Diploma.*

SPRING WHEAT.

1. O. Curtis, Sheffield, $5
2. E. W. Gardner, Nantucket, 3

INDIAN CORN.

1. O. Curtis, Sheffield, 5
2. W. Clapp, Dorchester, 3

POTATOES.

1. J. Brooks, Jr., Princeton, $5
2. J. F. C. Hyde, Newton Centre, 3

RED TOP SEED.

1. S. T. Thurlow, West Newbury, 5

VEGETABLES.

COLLECTION.

1. S. A. Merrill, Salem, $10
2. J. F. C. Hyde, Newton Centre, 5

CHINESE SUGAR CANE.—Experiment in the growth of the Cane, including trials for fodder, sirrup and sugar.

1. J. F. C. Hyde, Newton Centre, 25
J. Lake, Topsfield, 15

BREAD.

WHEAT.

1. Mrs. W. Harden, Quincy, 3
2. Mrs. J. T. Ludden, Braintree, 2

RYE AND INDIAN.

1. Mrs. E. Stebbins, Boston, 3

WHEAT AND INDIAN.

1. M. F. & J. A. Brigham, Boston, 3
2. Mrs. A. Merrill, Needham, 2

RYE.

1. Mrs. A. F. Adams, Fitchburg, 3

DAIRY.—BUTTER.

JUNE BUTTER—50 *pounds.*

1. Mrs. W. Roper, Princeton, $15

MADE SINCE JUNE—50 *pounds.*

1. T. M. Stoughton, Gill, 15
2. W. Robinson, Jr., Barre, 10
3. P. M. Wright, Windsor, 5

LUMP—20 *pounds.*

1. Henry Boyles, Princeton, 15
2. John Forbush, Bolton, 10
3. W. Eames, Worcester, 5

CHEESE.

NEW—100 *pounds.*

1. W. Robinson, Jr., Barre, $15
2. Samuel Ellsworth, Barre, 10
3. H. Tidd, New Braintree, 5

FRUITS.—APPLES.

COLLECTION, *largest and best.*

1. T. Clapp, Dorchester, $20

GRATUITY FOR COLLECTION.

J. Lake, Topsfield, 10

TWELVE VARIETIES.

1. W. Stratton, 15
2. D. C. Brewer, Springfield, 10
3. W. W. Whelidon, Concord, 5

PEARS.

COLLECTION, *largest and best.*

1. John Gordon, Brighton, $20
2. Hovey & Co., Cambridge, 15
3. H. Vandine, Cambridgeport, 10

TWELVE VARIETIES.

1. A. Low, Roxbury, 15
2. W. Bacon, Roxbury, 10

BEST DISH.

1. T. Clapp, Dorchester, 5
2. W. Bacon, Roxbury, 3
3. Jesse Haley, Cambridgeport, 2

PEACHES.

COLLECTION, *largest and best.*

1. T. Clapp, Dorchester, $15
2. Asa Clement, Dracut, 10

CRANBERRIES.

ONE BARREL.

1. A. K. Leland, Sherborn, $10
2. E. D. Miller, Dorchester, 8
3. Edward Reed, Burlington, 6

GRAPES.

BEST NEW NATIVE HARDY SEEDLING.

1 E. W. Bull, for Concord Grape.

BEST DISPLAY OF NATIVE GRAPES.

1. C. E. Grant, Roxbury, 20
2. G. B. Cutter, Weston, 15
3. K. Bailey, Charlestown, 10

BEST DISPLAY OF FOREIGN GRAPES.

1. Dr. Durfee, Fall River, 20

AGRICULTURAL IMPLEMENTS.

COLLECTION.

1. Nourse, Mason & Co. $50
2. Blake, Barnard & Co. 40
3. Parker, White & Gannett, 30
Nourse & Co., Diploma and $20

To NOURSE & CO.—Scythe Snath $2; Eagle Corn Stalk Cutter $5; Billing's Horse Corn Planter $5; Emery's Portable Saw Mill $10; Johnson's Fan Mill $5; Self-Acting Cheese Press $5; Fay's Hand Press, Diploma.

NOURSE, MASON & CO.—Best collection of Plows, Diploma or Medal; Stevens' Iron Scythe Snaths $2; Steel Tooth Harrows $3; Howe's Drill Harrow $5; Knox's Gang Cultivator $3; Horse Hoe $5; Vegetable Cutter $5; best collection of Baskets $2; Armsby's Hand Corn Sheller $3.

PARKER, WHITE & GANNETT.—Fyler's Patent Churn $5; Whitman's Double Horse Power $10; Belcher's Self-Sharpening Hay Cutter $5.

BLAKE, BARNARD & CO.—Ridging Plow $3; Ox Yokes $5; Dodge's Pump $2; Pratt's Axes $5.

Best Horse Power, Burt, Wright & Co., Harvard, $10
Garden Hoe, J. W. Crosby, North Bridgewater, 1
Potato Digger, H. Partridge, Medfield, 2
Manure Forks, " " 2
Rotating Harrow, H. Hall, Putnam, O. 3
Shovels, O. Ames, Easton, 2

For the New England Farmer.

EXPERIMENTING WITH ASHES AND PLASTER.

Since 1855 I have tilled sandy loam soil; prior to that date I had always, for the last forty years, worked on hard, rocky soil, and of course was not posted as to the best way of tilling the sandy soil. Being in want of manure, I bought some plaster and ashes; the ashes I applied to my corn, but left one part of the field without ashing; that which was ashed grew much the heaviest corn, as I expected. As to the plaster, I did not make satisfactory experiments the first year, but in '56 and '57, wishing to know whether it made the crop any better, I commenced the trial of plastering some, and leaving some rows not plastered. I saw no difference in '56, but not being quite satisfied, I tried the experiment in '57, in a number of different places, in different fields. I left some rows without plastering, and in one case I double plastered, putting two table spoonsful instead of one in each hill. In digging, I carefully measured the potatoes, and in no case was the preference given to the plastered; the row double plastered being in no way different from those not plastered at all. As to ashes applied to potatoes in '56—about the 8th of May I planted a piece of potatoes. To one part I applied dry house ashes in the hill, some two gills to each hill, and one part I manured with coarse, unfermented horse manure, and one part was unmanured. At digging time I carefully dug and measured, and found that where the ashes were applied, the largest crop. Twelve hills in the best of them made a bushel, and eighteen of that where it was manured, and twenty-six where not anything was put on the land. In '57, on similar soil, it was reversed. About the 7th, 8th and 9th of May I planted a field of potatoes, and applied ashes as in '56, on a part of the field, all the rest of the field being lightly manured in the hill with light, coarse, unfermented manure. At digging time I found that the potatoes were much the best where I put the manure—just the reverse of that last year. Now what has caused the difference? As there was no difference in the soil, I can only account for it from the fact that in July, '56, it was remarkably dry whereas the four months of last summer, May, June, July and August, were all quite rainy months. I think that the ashes helped in sustaining moisture

in the dry month of July, '56. In '57 too much rain fell for ashes, which helped the manure. Still there may be some other cause. Seeing an article in the *Farmer* relative to planting the large end of the potato, asserting that it would grow much larger, yield more, and ripen ten days earlier, and wishing to learn what I could, I tried the experiment; selected four rows in a corn field, on which no manure had been put, put only one piece in each hill, dug and measured carefully, and found no difference in measure. The small ends came up first, and continued to keep ahead, but I saw no difference in the size of the potatoes at digging time; so I hardly think the writer is correct. Now if some one better informed than myself will give information as to the use of plaster, he would much oblige a learner. Is there not a difference in plaster? If so, where can we find that which is good? A. P. B.

Roxbury, Vt., Nov., 1857.

For the New England Farmer.

WHITEWASHING TREES.

A writer upon the subject of whitewashing trees asserts that trees are subject to diseases as much as animals are. But we do not whitewash animals for any diseases with which they are afflicted, or for the prevention of such as they may be liable to.

The skins of animals are perforated by nature, we believe, in wisdom, for the preservation of their health and lives. The pores of the skin are for the ventilation of the system. In the process of digestion, the impure gases that are generated escape through the pores of the skin. When the pores are obstructed, the organs of digestion and the absorbent vessels and circulatory system are deranged and disordered.

When the pores of the skin are too much contracted from the effect of cold, or are obstructed from uncleanliness, the whole system is more or less deranged, and a phlegm is formed which obstructs the digestion and prevents the enjoyment of perfect health. It is essential to health that the pores of the skin be most expanded in the open or warm weather, and consequently, when they are contracted by sudden cold, then the result is most injurious and fatal.

Were one to besmear his skin completely with pitch or any other substance that will close the pores and stop the invisible perspiration and ventilation, a cold would be the result—and it would sooner prove fatal in summer than in winter.—Phlegm would forthwith be formed. Wearing gutta percha dresses or clothing for a long time will have a corresponding effect.

The skin or bark of trees and plants has pores for the like purposes of ventilation and purification of the tree and plant. The effect of stopping that ventilatory process in trees and plants must be the most injurious in summer. Were we to clothe the tree or plant or flower stems with a full gutta percha suit, there could be no pure sap generated therein.

A tree will be usually in health when the grass is prevented from growing over its roots, and the soil is properly fertilized. In open land it would be well to confine the fallen leaves beneath the tree to prevent the winds from blowing them away. Some cheap netting or wire gauze covering would save them. P.

For the New England Farmer.

WOMEN THE REFORMERS OF SOCIETY--No. 1.

Mr. Editor:—Your excellent journal, in its weekly visits to fifteen or twenty thousand families, must come under the eye of some thirty thousand mothers and daughters. Perhaps I should not go beyond the limits of exact truth if I should say that it is read more or less by some fifty thousand females who are either influential in the families of farmers, or are destined to be.

Now, sir, along with the praises which, ever and anon, as I travel up and down the country, I hear bestowed upon some of the articles in your columns, designed for the class of readers alluded to, I hear an occasional wish for something more specific—at least, more frequently—for housekeepers. It is my purpose to furnish an occasional article of this sort for your examination, and for insertion, if it should seem worthy. Allow me to commence with the following paragraphs from a recent English magazine of considerable merit.

"If ever society becomes mentally great, the impulse must be given by our mothers and daughters, who, to a larger extent than the professional schoolmaster, are the real educators of the young. This great impulse can never be given until we adopt simple dietetic habits, which will give woman more leisure for the improvement of her mind.

"With our present customs, this leisure is unattainable. The dressing of meats, and the preparation of sauces and gravies engross so much of her time, that opportunity for mental culture is impossible. Nay, should she be fortunate enough to command a few spare minutes, her excessive labor in supplying the animal wants unfit her for the exercise of her higher powers."

The late Rev. Timothy Flint, more than twenty years ago, and Dr. Rupp fifty years ago, were accustomed to concede to woman's sphere of influence all the importance which our transatlantic brother has attached to it; and in some respects, more. The first of these insisted that woman must be the prime mover in the great work of reformation, and the latter said that mothers and schoolmasters were wont to plant the seeds, not only of nearly all that is *great* in the world, but of that which is *good*.

These sentiments, with a single modification, I wish to endorse; and by statements, and facts, and common sense reasonings to sustain. The single modification to which I refer is the addition to the phrase, "The dressing of meats and the preparation of sauces and gravies," the words, "and other equally artificial and unnatural combinations of customs." My contributions will generally be short. Let me close these preliminaries, by another paragraph from the above-mentioned British magazine.

"It is no pleasing subject for reflection that woman, under the influence of whose precepts and example the rising generation gather their first lessons in life, should be so comparatively powerless for everything of an educational character, when, were she but elevated to that state of which her mind is susceptible, she might become a teacher in her family, and assist in banishing that mental darkness now the unfortunate lot of millions of young beings, crying for light, but crying in vain.

Auburndale, Nov. 5, 1857. W. A. Alcott.

EXTRACTS AND REPLIES.

HOW SHALL I RAISE MY COLT?

Will you be so kind as to inform me, through the medium of your paper, what measures you should adopt in raising a colt after he has attained the age of one year; that is, should he have grain? Should he be blanketed? Should he stand any time on a floor? When should he be broke, &c.

Brattleboro', 1857. JOHN C. GRAY.

REMARKS.—Among our correspondents are those thoroughly acquainted with this matter, and able to answer Mr. Gray. The subject is one of importance always, but especially so when horses command such prices as they do at present. Perhaps Mr. VINING, of Plainfield, will give us his ideas on the subject.

—

CHINESE SUGAR CANE.

Numerous experiments, in growing this plant, have been made the present season. There can remain no doubt on this point. A sweet juice and fair molasses can be made from it, and in quantity exceeding 200 gallons to the acre. But I have not yet met the individual who has succeeded in converting the juice into sugar. I learn from a gentleman, who has paid more attention to this than any other among us, that some chemical process with which I am not acquainted, is necessary before this can be done. Where are the State assayers and other gentlemen of learning, at this time?—Now is the day, now is the hour, to come forth and show your power. Sugar is made in other countries, and can be made here. There is nothing that cannot be done by a genuine, full-blooded

October 23, 1857. YANKEE.

—

ROLLERS FOR MOVING BUILDINGS.

Can you or any of your correspondents give me information in regard to the cheapest and best plan for rollers for moving buildings? I have used the common kind, which are about 3½ ft. long, and from 6 to 8 inches in diameter, which are very good for a short distance, but for a long pull they require too much labor. My plan is to have some made of logs about two feet diameter, and 15 or 18 inches long, with an axle of suitable size and length, using four pairs; that is, two pairs at each side of the building. Is that a good proportion, and what should be the size of the axle to sustain a house of moderate size, say 20 by 30 ft., or thereabouts? Would they be preferable to those first described? Any other information through the *Farmer* would be thankfully received. A. ATWATER.

Burlington, 1857.

REMARKS.—This communication was received some time since, but was accidentally mislaid. We possess little knowledge of the matter of inquiry, but have no doubt some of our intelligent correspondents will be able to suggest valuable facts.

—

THE PURPLE WASP.

In answer to your correspondent from Chester, N. H., in regard to the purple, mud, or mason wasp, and the spiders so mysteriously found stowed away in its nest, which seems to have been to him so unaccountable, I would say that the last-named insects were packed down without salt, by the little mason, as food for its young. How wonderful the instinct that prompts it thus to provide for the future wants of its offspring, the helpless maggot or grub, which when first awakened into life in its narrow cell, finds its provisions within reach at the head of its bunk. If Mr. Dunlap will consult "Kirby and Spence's Introduction to Entomology," he will learn more of the mason wasp, as well as many other insects. A new and cheap edition, published in England, of this excellent and standard work on entomology, can now be obtained, and should be in every farmer's library. S. P. FOWLER.

Danvers-port, Oct. 20, 1857.

—

HORSE POWER GRIST MILL.

I would like some information in regard to the "Horse Power Portable Grist Mill." What is your opinion of them? Would it be profitable for a person who raises two hundred bushels of corn to purchase one? Which kind is the best, if there is more than one? If you will give the desired information you will much oblige E. S.

Stoughton, Oct. 22, 1857.

REMARKS.—There are several kinds of horse portable grist-mills, but we cannot say which is the best. We have seen some of the cast iron mills in operation where they made good meal at the rate of three or four bushels an hour, or perhaps something more than that, but this gave us no knowledge of how long they would wear, or what the cost of running would be. The "Little Giant," "Magic" and "Young America" are cast iron; "Felton's Patent Self-Sharpening Grist mill" we have never seen at work; "Brown's Grist Mill" is made of the French Burr Stone, and always works well, but is somewhat more expensive than others. Our opinion is, however, if you wish to grind two hundred bushels of corn annually, that it would be a matter of economy to procure a good mill—not a cheap one in the common sense —and do your own grinding, provided you always have plenty of horse power of your own.

For the New England Farmer.

DISEASE IN COWS.

MR. EDITOR:—Having lost two cows the present year with what some call *the dry mouth*, I wish to know, through you or some one of your numerous subscribers, a remedy for such cases. I tried salt and senna, and last I tried thoroughwort, but of no avail. This last cow was very valuable, and the value of the two was one hundred and twenty-five dollars. This sum is too large for a common farmer to lose. Farmers are often afflicted in this way in their stock of cattle. My case is not an isolated one. I have examined the peak after death, and in the last case it was as dry as it would be if it had been dried by a hot fire, and especially in the middle; on either side there was some moisture. This cow lived one week, but in great distress, appetite all gone; everything had to be turned into her. I could not force her to go more than one or two rods before she would lie down.

Derry, N. H., 1857. W. N. WILKINSON.

WHO SHALL DECIDE WHEN DOCTORS DISAGREE?

It is averred by the farmers of the county of Middlesex, that their society is sixty-three years old. So it was stated distinctly by the President, at the late anniversary dinner. It is averred by the Berkshire Agricultural Society, that this society is the oldest agricultural organization in the United States. Both these averments cannot be true. It is high time that the truth should be made known; and that errors of this character should not be repeated, year after year. I am led to this remark from the observation in the *Massachusetts Ploughman*, of this morning, affirming the claim of the Berkshire Society. I respect an affirmation from such a source, because I presume the senior editor of the *Ploughman* has personal knowledge of everything agricultural that has transpired in Massachusetts for the last sixty years. In fact, I myself can remember nearly as long as this. I have always had some doubts of the right of the Middlesex Society to be considered as old as she claims to be—and should never have assented to the propriety of this claim had it not been put forward by authority so respectable as it has—by yourself and others.

Oct. 17, 1857. ESSEX.

REMARKS.—Everything that becomes a matter of historical interest in the State is of sufficient importance to be correctly stated; we will, therefore, give the facts showing how and when the Middlesex Agricultural Society was formed, viz.:—

"The Massachusetts Society for promoting Agriculture" was incorporated in 1792, and was the first society, probably, established in the Commonwealth. It has always had members strongly interested in its objects, and who have exerted a considerable influence upon the practical husbandry of the State. It was this zeal which suggested the following circular:—

"MIDDLESEX, DEC., 1793.

CIRCULAR.

SIR,—Relying on your known attachment to the best Interests of our Country, we address you on a Subject which we think contains a fair Prospect of promoting Improvements in Husbandry. Should the Proposal strike you in as beneficial a Light as it has us, we doubt not your cheerful Acquiescence in the scheme.

In Pursuance of the Recommendation of the Trustees of the Massachusetts Society for promoting Agriculture, we have conceived a Plan of forming a subordinate Meeting in this County. With this view we request you to meet us, with such other Members of the Agricultural Society in the Western part of the County, as may be disposed to attend, at the House of Mr. William Adams, Innholder, in Chelmsford, on Monday the sixth day of January next, at two of the clock in the afternoon, to lend your aid in forming such Measures as shall appear calculated to promote its advantages to the Community, and in general to improve the Husbandry of the County.

We are, Sir, respectfully Your
Most Obed't Servants—
JOHN PITTS,
EBENEZER BRIDGE,
DUDLEY A. TYNG."

This circular was sent to such gentlemen of the county—but members of the Massachusetts Society—as it was supposed would be sufficiently interested in the subject to meet and organize a new society; the meeting took place as proposed, and the following form and articles of association being read and considered, were unanimously adopted:—

ASSOCIATION.

The Trustees of the Massachusetts Society for promoting Agriculture having recommended "that the members in different parts of the State would meet at stated times, in places convenient to themselves, and invite the aid of others who are desirous of forwarding Improvements in Agriculture; and that they would from time to time transmit to the Trustees or any officer of the Society,—any information they may think useful:—We, the subscribers, Members of the said Society—dwelling in the Western part of the County of Middlesex, being desirous of furthering the laudable Designs of the said Society, and of promoting to the utmost of our Power the Husbandry of our Country: Do hereby Associate together and form ourselves into a Society for the Purposes above expressed, by the name and style of THE MIDDLESEX HUSBANDMEN, and do adopt and agree to the following rules and Regulations."

This Society was incorporated Feb. 28, 1803, has held its annual exhibitions regularly, and has undoubtedly been the means of promoting the agricultural arts, and greatly increasing the dignity and popularity of the calling.

The Berkshire Society was established in 1810, mainly through the exertions and influence of Mr. ELKANAH WATSON, who purchased the Van Shaick estate in 1807. In August, 1810, Mr. Watson wrote an "appeal to the public," and says:—"In consequence of this first step, on the first of October, 1810, I find the following notice in the Pittsfield *Sun:*

"The FIRST Berkshire cattle show was exhibited "with considerable eclat on Monday last. This "laudable measure cannot fail to be highly benefi- "cial, considering its novelty in this part of the "world, and that many have had their doubts, and "even a dread of being held up for the finger of "scorn to point at. The display of fine animals, "and the number exhibited, exceeded the most san- "guine hopes of its promoters, and a large collec- "tion of people participated in the display; the "weather was delightful. The ice is now broke,— "all squeamish feelings buried, and a general satis- "faction evinced. It will now be impossible to ar- "rest its course; we have everything to hope and "to expect, the year ensuing." He then adds,—"a committee of fourteen respectable farmers, from different parts of the county, was appointed to take preparatory measures for a real exhibition in October, 1811."

This language is too plain to leave room for the supposition that any agricultural society had exist-

ed in Berkshire prior to 1810, for it had a *novelty in that part of the world.* It is only as a matter of history, perhaps, that this is of consequence.

The *first* agricultural exhibition, however, in Berkshire, took place as follows: we quote Mr. Watson's language:

"In the fall of 1807, I procured the first pair of Merino sheep that had appeared in Berkshire, if not in the State. They were the first I had ever seen; although defective in the grade I was led to expect, yet as all who examined their wool, were delighted with its texture and fineness, *I was induced to notify an exhibition under the great elm tree in the public square in Pittsfield, of these two sheep on a certain day. Many farmers, and even women, were excited by curiosity to attend this* FIRST *novel and humble exhibition. It was by this lucky accident, I reasoned thus,—If two animals are capable of exciting so much attention, what would be the effect on a larger scale with larger animals?*"

CLOSE OF THE NINTH VOLUME.

Another year has rolled away—another of those distinctly marked periods by which we measure our existence and chronicle events, is numbered with those that have preceded it since the commencement of time. In the future, these years appear to us lusty and long, full of promises, and freighted with enjoyments; but when gone, away they sink into the dim past, and are soon lost in the night of ages with which they have mingled.

The period now just closed has been one in which transactions have taken place of great importance to all,—of wars and rumors of wars, of great changes in the condition of the people of our own favored land, and of startling financial embarrassment, revulsion and ruin, over a large portion of the civilized globe. In the natural world, too, those gradual changes which have probably always been going on, have occasionally taken place; earthquakes shake portions of the solid continent, a meteor dashes itself at our doors, a visitor, perhaps, from some other planet, or an island sinks from our view, while others in distant seas shake the watery crest from their heads and become dry lands, soon teeming with food for man and beast. Cities, with once commodious harbors at their feet, are now far inland, with avenues of trees and populated streets where once each influx of the ocean tide brought the dolphin to play and the sea-gull to seek his food; while in another direction, the utmost skill of man, with all the appliances of science and art, scarcely suffice to keep the approaching and impending wave from sweeping the labors of unnumbered years and unnumbered souls to the besom of destruction.

So change is written upon the foundations of the world itself, as well as upon human affairs, and upon our physical condition. It is wise in us, then, to bow in filial submission to the blast that bends, but does not always break, and bring our thoughts and aspirations into harmony with a condition of things, constituted with *change* written upon them as a primeval law. All these changes, as well as the light of revelation itself, are sufficient evidences that *this* is not our abiding place; that God has intended to give the human mind, its desire and affections, a wider scope, under a condition of things more permanent and perfect.

Shall we not strive, then, to catch the spirit of our great Exemplar, and become fitted for that higher and holier life? more of the strong faith of Paul, and the earnest, abiding love of John, so that when all these changes have faded from before our eyes, and our last change has come, we may welcome it as we have the heralds of spring, and our souls expand with joy as we pass to that new creation where righteousness only dwells?

In the field of labor with you, kind reader, our duties have been delightful; they have been literally often in green pastures and beside still waters; they have frequently led us to your homes and hearthstones, where the warm affections and genial influences of your household have greatly encouraged our pursuits; those duties may have been of benefit to you, while your appreciation of the objects of this journal, and your constant and hearty support in every way that can give a journal vitality and value, have always cheered and sustained us. Thus it is that we can turn over the last leaf of this volume with the consciousness of co-operating with you to make labor lighter; to diffuse valuable information; to place before the sons and daughters of the farmer some glimpses of a true life; to show that your calling, in dignity and importance, is not excelled by any other occupation of man; to make the farmer's home tasteful and attractive, the abode of warm attachments, and the true place for usefulness and rational enjoyment in the declining years of life.

It cannot be that these labors have been in vain. The suggestions of your pens have prompted new efforts in every department of the farm; the details of experiments in your fields, have caused other fields to bloom in perennial beauty, and in the management of stock, the construction of buildings, in draining, subsoiling, and the introduction of labor-saving implements, your experience and examples as set forth in these pages, must have had a widely-extended influence upon your fellow-laborers.

Let us part with the OLD YEAR, then, with regrets only for wasted time or talents; it has gone where it was bidden to go by the fiat of its Creator, has discharged its mission, and can never be recalled. Our prayer is for your individual prosperity and true happiness here, which will ensure that of hereafter, and that we may ourself hereafter more faithfully and ably discharge the trust reposed in us.